# CPR
# DIESEL SHOPS
# AT
# CALGARY

# C.P.R. Diesel Locomotive Shops at Calgary

*With Dieselization of the Canadian Pacific Ry. line between Calgary and Revelstoke fast nearing completion, maintenance facilities for the Diesel-electric locomotives have been provided at the Alyth yard at Calgary, and are described hereinunder. The programme calls for operation of 60 Diesel-electric road locomotives in the Calgary-Revelstoke territory and eight Diesel-electric switchers in the Calgary yards.*

First of its size to be built in Canada, the new Canadian Pacific Railway Diesel-electric locomotive service plant at Alyth Yard in Calgary has the capacity to look after 60 road locomotives operating on the Calgary-Revelstoke mountain territory and the eight Diesel switchers used in Calgary yard operations. At the end of 1951 the road had received 28 units for the Calgary-to-Revelstoke service and the remaining 32 units are in this year's orders.

Finished with asbestos siding on steel frame, for the next job which will not require painting, the main building features spectacularly good light. Almost the entire south side of its 260-foot length is taken up with windows 12 feet by 17 feet.

The main building has four pits running its length, each of which will accommodate a 208-foot streamliner. All platforms are the height of car and engine room doors and there are bridges which can be raised or lowered to move service equipment from one platform to the other.

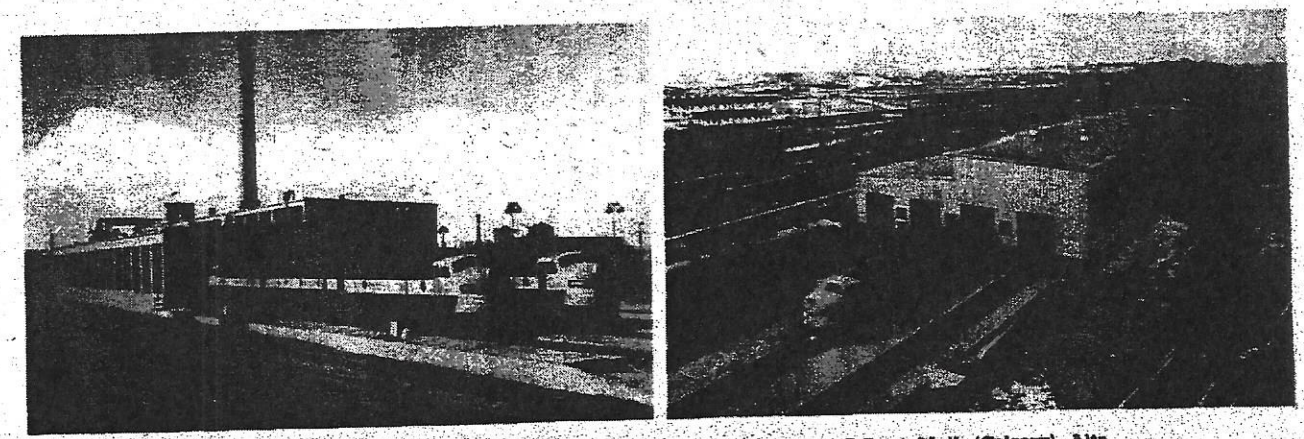
Stores and workshops are in a lean-to tied to the north side of the building. Completing the new construction in the area is a separate small building which houses the locomotive foreman and his staff. The Diesel shop foreman's office is in the main building.

Plans for the whole installation were developed at C.P.R. western engineering headquarters at Winnipeg in consultation with mechanical headquarters there. Pushing the job through on the ground was K. A. Truman, then Diesel Project Engineer and since become District Engineer for the Alberta District, while liaison for the mechanical forces was B. B. Woodland, of Winnipeg, General Inspector of Diesel Equipment. The top planning was done by W. G. Dyer, Engineer Maintenance of Way, and E. G. Bowie, Superintendent of Motive Power and Car Department, both of whom have jurisdiction over Prairie and Pacific regions from their Winnipeg headquarters.

**The Diesel-electric Unit Dispatch Board in the Alyth Diesel Service Plant**

The plant had the benefit of earlier C.P.R. experience in the eastern service plant set up at Chapleau and the yard Diesel setup for the "push button" yard at Montreal Cote St. Luc. By the same token, lessons learned at Alyth will be applied to any future plants in the Diesel programme just now being concentrated on in British Columbia.

Diesel fuel oil is dispensed from platforms outside the service plant and is piped to these locations from a 175,000-gallon storage tank nearby in the yard, which is the main yard in-



**Two Views of the Diesel-electric Locomotive Service Plant on the C.P.R. at Alyth (Calgary), Alta.**

made under section five, the sum of ten million dollars, bearing such rates of interest and subject to such other terms and conditions as the Governor in Council may approve.

5. To enable the work of construction and completion of the railway line to proceed forthwith, the Minister of Finance, upon application made to him by the Company and approved by the Minister of Transport, may, with the approval of the Governor in Council, make temporary loans to the Company out of the Consolidated Revenue Fund, not exceeding ten million dollars, repayable on such terms and at such rates of interest as the Governor in Council may determine and secured by securities that the Company is authorized to issue under section ofur.

6. (1) The Governor in Council may authorize the guarantee by Her Majesty in right of Canada of the principal and interest of the securities that the Company may issue under the provisions of this Act.

(2) The guarantee may be in such form and subject to such terms and conditions as the Governor in Council may determine to be appropriate and aplicable thereto and may be signed on behalf of Her Majesty by the Minister of Finance or such other person as the Governor in Council may designate, and such signature is conclusive evidence for all purposes of the validity of the guarantee and that the provisions of this Act have been compiled with.

(3) Any guarantee under this Act may be either a general guarantee covering the total amount of the issue or a separate guarantee endorsed on each obligation.

(4) With the approval of the Governor in Council, temporary guarantees may be made to be subsequently replaced by permanent guarantees.

7. (1) The proceeds of any sale, pledge, or other disposition of any guaranteed securities shall in the first instance be paid into the Consolidated Revenue Fund or shall be deposited to the credit of the Minister of Finance in trust for the Company, in one or more banks designated by him.

(2) The Board of Directors of the Company may authorize application to be made to the Minister of Transport for the release of any part of the proceeds deposited pursuant to subsection one, to the Company for the purpose of meeting expenditures in respect of the construction of the railway line, and the Minister of Transport may approve the applications, and upon the request of the Minister of Transport the Minister of Finance may pay the amount or amounts of such applications or part thereof accordingly.

8. The Minister of Transport shall present to Parliament during the first ten days of each session held prior to the date of completion fixed by or under section one, a statement showing in detail the nature and extent of the work done under the authority and the estimated expenditure for the current calendar year, together with the amount of any advances made under section five, and the amount of such advances reimbursed, and such further information as the Minister of Transport may direct.

9. The Company is not required to fence the right of way of the railway line and is not liable in damages by reason only of the absence of fencing.

## New Freight Traffic Records

New high monthly records in revenue freight traffic handled by the railways in Canada were established in both January and February this year, according to figures supplied by the Dominion Bureau of Statistics, Public Finance and Transportation Division. In January, revenue freight handled totalled 13,084,347 tons, an increase of 814,125 tons, or 6.6%, over the previous record of 12,270,222 tons established in January last year, and an increase of nearly 40% over the revenue freight tonnage handled in January of 1942. Of the total revenue freight handled in January this year, 9,963,827 tons were loaded at Canadian stations, an increase of 625,762 tons, or 6.7%, over that loaded in January, 1951. Foreign connections supplied 3,120,520 tons, compared with 2,932,157 tons in January last year; imported freight for Canadian points in January this year, at 1,637,428 tons, was slightly above that handled in the month last year, while in-transit freight, at 1,483,092 tons, was 164,349 tons greater than that handled in January last year.

Following are particulars of the revenue freight loaded on Canadian railways and received from foreign connections (both import and in-transit freight) in tons, in January, 1952, 1951 and 1950.

| Province | January, 1952 | January, 1951 | January, 1950 |
|---|---|---|---|
| Newfoundland | 42,350 | 31,705 | 24,083 |
| P. E. I. | 27,778 | 45,348 | 30,179 |
| Nova Scotia | 825,034 | 897,900 | 811,680 |
| New Brunswick | 572,691 | 495,474 | 373,381 |
| Quebec | 2,160,841 | 2,092,719 | 1,520,693 |
| Ontario | 5,636,676 | 5,342,561 | 4,433,495 |
| Manitoba | 472,353 | 524,547 | 335,197 |
| Saskatchewan | 1,221,568 | 878,412 | 882,711 |
| Alberta | 1,278,449 | 1,067,455 | 768,900 |
| British Columbia | 846,605 | 895,093 | 602,945 |
| Total for Canada | 13,084,347 | 12,270,222 | 9,882,264 |

The products handled in January in the three years were as follows, in tons:

| | | | |
|---|---|---|---|
| Agricultural | 2,706,841 | 2,341,218 | 1,599,958 |
| Animal | 169,865 | 188,557 | 199,775 |
| Mine | 4,202,061 | 4,209,991 | 3,586,427 |
| Forest | 1,876,296 | 1,563,009 | 988,718 |
| Manufactures & Miscellaneous | 4,129,484 | 3,967,452 | 3,309,386 |
| Grand Total | 13,084,347 | 12,270,222 | 9,882,264 |

### February Traffic

Another new high record for the month was established in February, when total revenue freight handled by railways in Canada totalled 12,491,148 tons, a new February high record of 11,288,311 tons established in February, 1948. Of course, the extra day in February this year accounted for some of the increase, but not all of it, as the increase over the February, 1951, traffic was 1,285,618 tons, or one of 11.5%. Of the total revenue freight handled this year, 9,412,310 tons was loaded at Canadian stations, compared with 8,280,197 tons in February last year. Foreign connections supplied 3,078,838 tons, of which 1,580,568 tons was destined for points in Canada and 1,498,270 tons was in-transit freight. Import freight in February last year was 1,517,510 tons, and in-transit freight in that month was 1,407,823 tons.

Following are particulars of the revenue freight loaded on Canadian railways and received from foreign connections (both import and in-transit freight) in tons, in February, 1952, 1951 and 1950.

| Province | February, 1952 | February, 1951 | February 1950 |
|---|---|---|---|
| Newfoundland | 42,135 | 48,511 | 35,531 |
| P. E. I. | 16,559 | 41,243 | 29,778 |
| Nova Scotia | 810,782 | 825,212 | 772,068 |
| New Brunswick | 491,971 | 513,107 | 398,783 |
| Quebec | 2,091,311 | 1,846,268 | 1,576,454 |
| Ontario | 5,611,706 | 5,243,795 | 4,302,389 |
| Manitoba | 505,806 | 423,259 | 357,486 |
| Saskatchewan | 990,945 | 647,228 | 597,461 |
| Alberta | 1,039,298 | 851,500 | 1,080,373 |
| British Columbia | 891,525 | 765,289 | 657,327 |
| Total for Canada | 12,491,148 | 11,205,530 | 9,806,650 |

The products handled in February in the three years were as follows, in tons:

| | | | |
|---|---|---|---|
| Agricultural | 2,291,933 | 1,750,552 | 1,499,999 |
| Animal | 164,460 | 170,084 | 161,449 |
| Mine | 3,839,965 | 3,796,204 | 3,567,458 |
| Forest | 2,117,186 | 1,696,253 | 1,349,665 |
| Manufactures & Miscellaneous | 4,077,584 | 3,792,437 | 3,328,079 |
| Grand Total | 12,491,148 | 11,205,530 | 9,806,650 |

## Much Continuous Welded Rail

Recent advice from Canadian Railroad Service Co., Ltd., is that "Ribbonrail" Service is producinng continuous welded rail at top rate in the United States. The "Ribbonrail" Service and equipment of Oxweld Railroad Service Co. are being used in that country by the following railways at the location stated: Chicago and North Western, West Chicago, Illinois; Boston and Maine, North Adams, Mass.; Central Railroad of Pennsylvania, Allentown, Pa.; Chicago and Eastern Illinois, Danville, Illinois; Norfolk and Western, Roanoke, Va.; Pennsylvania Railroad, Chambersburg, Pa.; Northern Pacific Railway, Big Timber, Montana; Chicago, South Shore and South Bend, Tremont, Indiana; Chicago, Rock Island and Pacific, Silvas, Illinois.

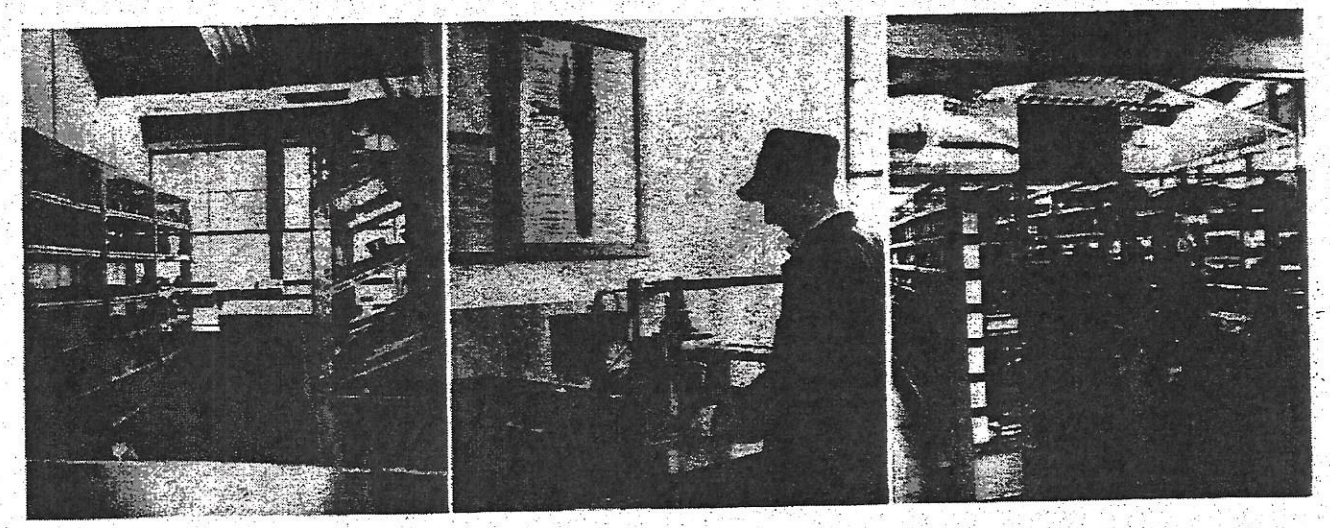
Canadian Railroad Service Co., Ltd., states that later this year, as soon as equipment is available, Ribbonrail continuous welded rail will be installed by the Toronto, Hamilton and Buffalo Ry. at Aberdeen, near Hamilton.

stallation for the C.P.R. in Calgary. The yard includes a 50-mile spread of track with roundhouse, locomotive back shop, marshalling tracks and service plants such as sand, ice, coal and water.

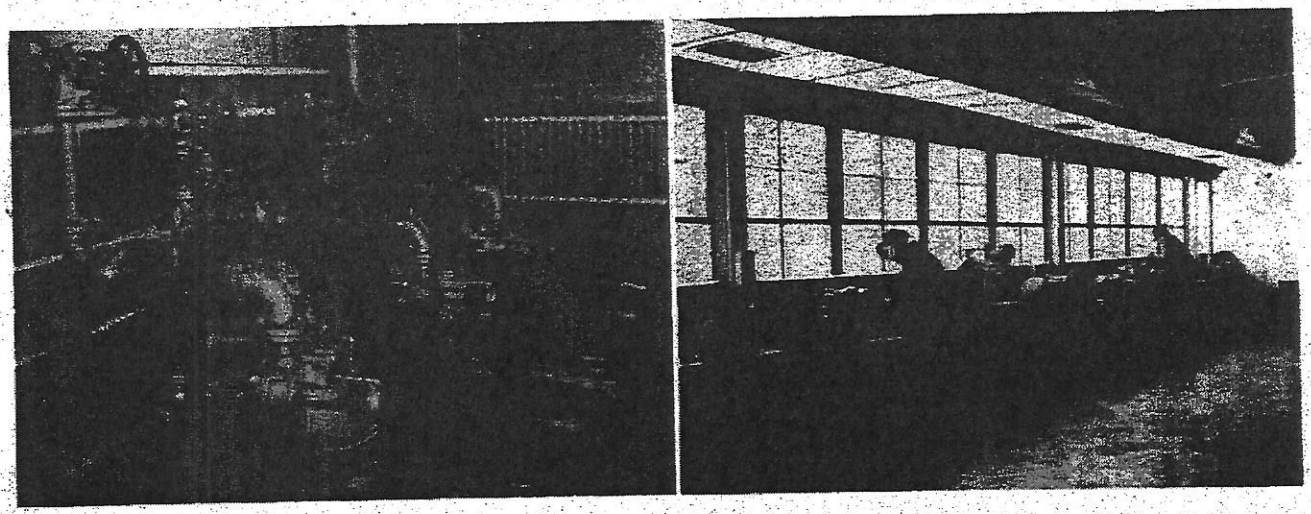
The Diesel plant offices and workshops in the leanto on the north side of the building, which open onto the platform, include the Diesel shop foreman's office with its dispatch board showing inspections by round trips and at 5,000, 10,000, 30,000 and 60,000 miles. A store room, tool room, electric control room, filter and parts cleaning room and a room for reconditioning parts also are included at this platform level. Exterior of the for checks. A dust-proof room in the leanto looks after repairs on precision parts such as injectors.

The store room carries everything needed for running repairs in Diesel parts, most of them small and including fuel pumps, filters and brushes. A loading dock opens into the storeroom from outside.

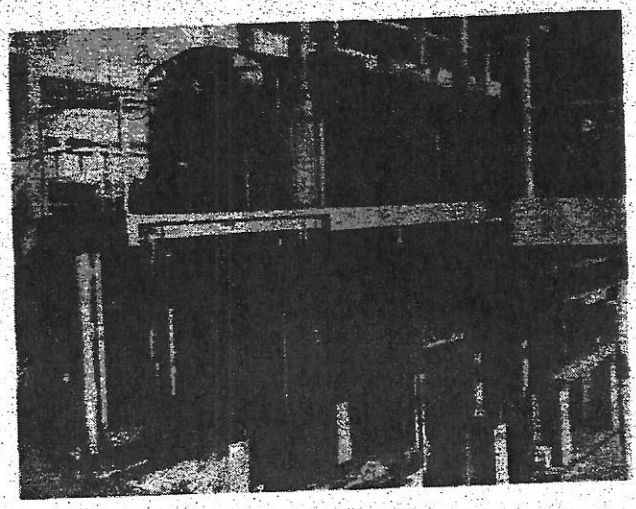
The crankcase lab, on the ground level, is an interesting place. An average 40 samples a day are taken



**Left, Tool Room: Centre, Testing a Fuel Injector; Right, the Storeroom**



**Left, Lubricating Oil Pumps, and Right, Parts Reconditioning Room, at the Alyth Diesel Service Plant.**



**Platform Bridge at Alyth Diesel Service Plant**

stallation for the C.P.R. in Calgary. The yard includes a 50-mile spread of track with roundhouse, locomotive back shop, marshalling tracks and service plants such as sand, ice, coal and water.

The Diesel plant offices and workshops in the leanto on the north side of the building, which open onto the platform, include the Diesel shop foreman's office with its dispatch board showing inspections by round trips and at 5,000, 10,000, 30,000 and 60,000 miles. A store room, tool room, electric control room, filter and parts cleaning room and a room for reconditioning parts also are included at this platform level. Exterior of the leanto abuts the siding which handles tank cars of lubricating oil.

At ground level under the platform are the crankcase test laboratory, pump room for lubricating oil and tank room for clean and dirty oil, fan room, lunchroom, locker room and wash rooms.

Plant heat comes from the Alyth central boiler plant. A heating duct runs the full width of the building with several branch ducts the entire length of the plant. Unit heaters hung from the ceiling supplement the system. There is an aridifier to dry compressed air used in blowing out electrical equipment. In the main plant an air-changing system gets rid of exhaust gases when Diesels are run for checks. A dust-proof room in the leanto looks after repairs on precision parts such as injectors.

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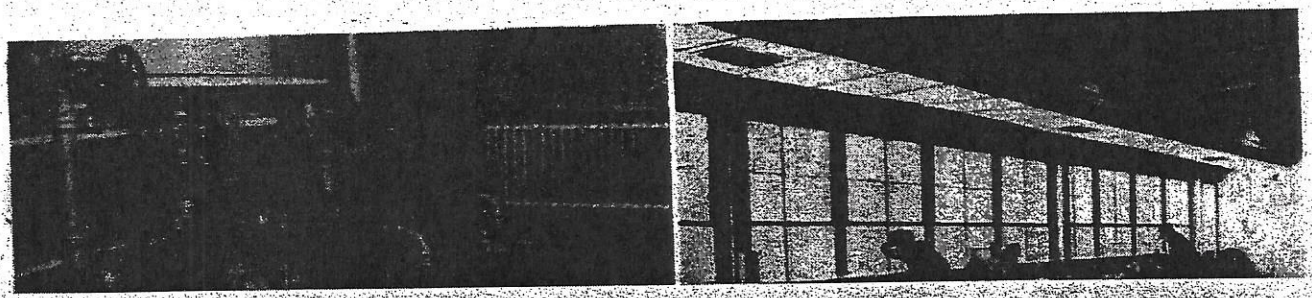
**Left, Tool Room; Centre, Testing a Fuel Injector; Right, the Storeroom**



and are given the various tests for viscosity, precipitation, flash point and fuel dilution from the 160 gallons of lubricating oil each crankcase holds. Lorne Shepp, the lab technician in charge, worked on Diesels at both Chapleau and Cote St. Luc before his move to Calgary.

In the pump room, there are three pumps handling the movement of dirty crankcase oil to the two 4,000-gallon tanks provided for this, and in addition there are three 5,000-gallon tanks for new lubricating oil. Dirty oil is sent away for reclamation. The clean oil is lifted from the ground floor tanks to lubricating oil dispensers on the platform.

The staff rooms include locker space for the 100 persons who will man the plant when all Diesels are delivered.

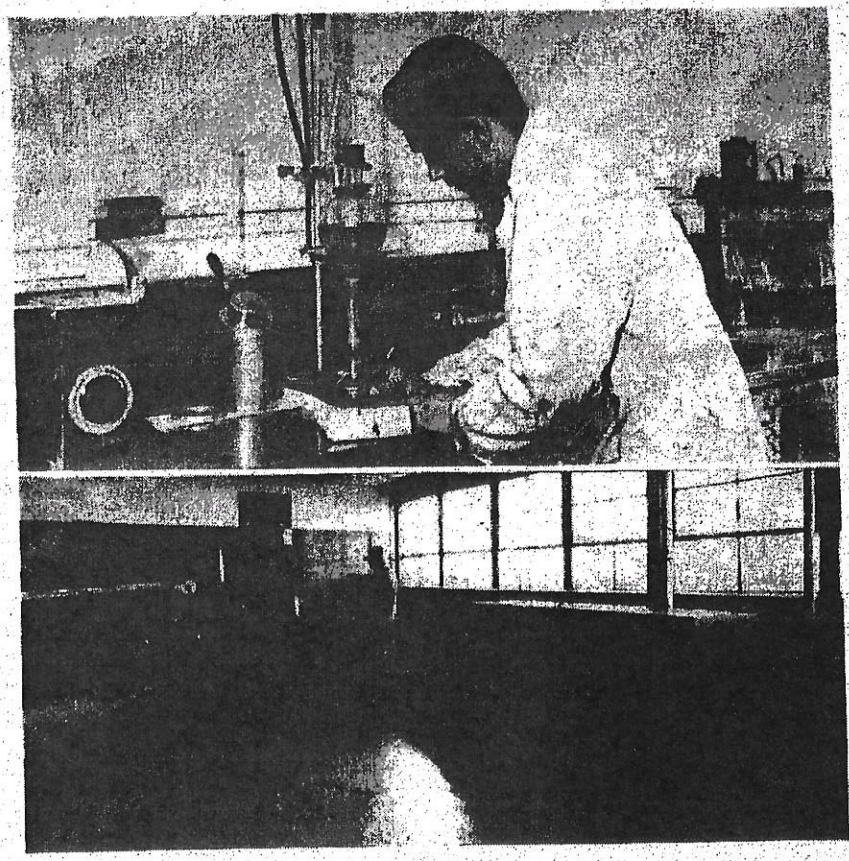
The plant cost more than a million dollars and went into service first in the late summer of 1951.

The road Diesels haul 4,800 tons out of Calgary in freight service, a 208-foot streamliner doing the job. Freight was the first service to get the new power, but this spring a start was made on Diesel passenger service with Number One westbound and Numbers Four and Eight eastbound chosen to make the best use of the power. By the end of the summer all service between Calgary and Revelstoke will be handled by the new Diesels which the new plant at Calgary looks after.

Driving into the new Diesel service plant from Calgary streets, the route passes the roundhouse which services, among other things, the giant 5900 class steam locomotives which the Diesels are replacing. These locomotives, largest in the British Empire, have been and are being assigned to freight runs between Calgary and Swift Current. In 1949, when a new 5900 was delivered from the builders, it was stated policy that it was likely the last steam locomotive the C.P.R. would buy.

Since then the Diesel programme has gone into full effect for all service between Montreal and Wells River, Vt.; for freight service between Cartier and Fort William, and on the

ger, two were employees and 24 others, and of those injured, 37 were passengers, 198 employees and 56 others.



Upper view, a Laboratory Technician Making a Distillation Test; Lower View, the Filler and Parts Cleaning Room, Showing the Farr Automatic Car Body Filler Washer

The level crossing accidents, by provinces, were:

| | |
|---|---|
| Nova Scotia | 1 |
| New Brunswick | 2 |
| Quebec | 3 |
| Ontario | 18 |
| Saskatchewan | 2 |
| Alberta | 3 |
| British Columbia | 1 |
| | 30 |

Automobiles were involved in 20 level crossing accidents, auto trucks in seven, pedestrians in two and a motorcyclist in one. Chief causes were

railway-owned freight cars on U.S. Class 1 lines on June 1, the numbers of the various classes awaiting or undergoing repairs, and the percentages of such cars of total cars on lines:—

| Classes of Cars | Total Cars on Lines | Cars for Repairs | % of Total |
|---|---|---|---|
| Box, plain and ventilated | 684,541 | 34,399 | 5.0 |
| Automobile | 684,541 | 34,399 | 5.0 |
| Gondola | 295,958 | 18,731 | 6.3 |
| Hopper, open top | 556,866 | 30,858 | 5.5 |
| Hopper, covered | 27,928 | 470 | 1.7 |
| Stock | 42,369 | 3,506 | 8.3 |
| Flat | 47,801 | 2,138 | 4.5 |
| Refrigerator | 18,469 | 1,014 | 5.5 |
| Tank | 7,488 | 301 | 4.0 |
| All freight cars | 1,762,651 | 96,433 | 5.5 |

**Privately-owned Cars on U.S. Lines.**

gallon tanks provided for this, and in addition there are three 5,000-gallon tanks for new lubricating oil. Dirty oil is sent away for reclamation. The clean oil is lifted from the ground floor tanks to lubricating oil dispensers on the platform.

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Driving into the new Diesel service plant from Calgary streets, the route passes the roundhouse which services, among other things, the giant 5900 class steam locomotives which the Diesels are replacing. These locomotives, largest in the British Empire, have been and are being assigned to freight runs between Calgary and Swift Current. In 1949, when a new 5900 was delivered from the builders, it was stated policy that it was likely the last steam locomotive the C.P.R. would buy.

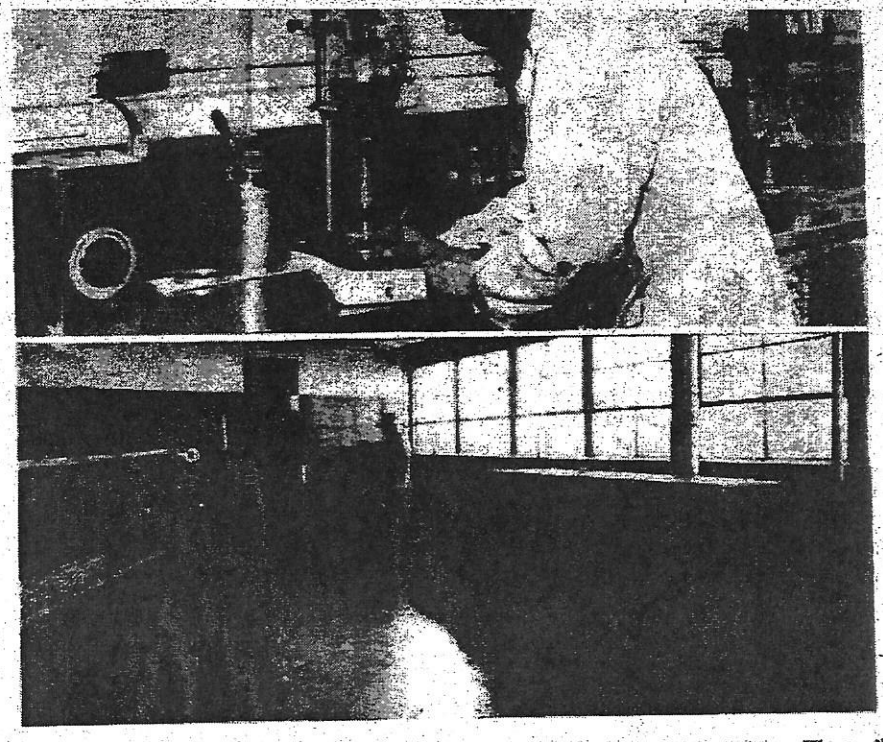
Since then the Diesel programme has gone into full effect for all service between Montreal and Wells River, Vt.; for freight service between Cartier and Fort William, and on the Calgary-Revelstoke section now being completed.

By the end of this year the C.P.R. will have 282 Diesel-electric locomotives. During last winter, test activity on this type of power was concentrated on the section from Vancouver to Medicine Hat via the Crow Line.

## Railway Accidents

In May, according to the report of the Operating Department of the Board of Transport Commissioners for Canada, there were 245 accidents on Canadian railways, with 14 persons killed and 246 injured, and 30 accidents at level crossings, with 13 persons killed and 45 injured, a total of 275 accidents, with 27 persons killed and 291 injured.

Of those killed, one was a passen-



Upper view, a Laboratory Technician Making a Distillation Test: Lower View, the Filter and Parts Cleaning Room, Showing the Farr Automatic Car Body Filter Washer

The level crossing accidents, by provinces, were:

| | |
|---|---|
| Nova Scotia | 1 |
| New Brunswick | 2 |
| Quebec | 3 |
| Ontario | 18 |
| Saskatchewan | 2 |
| Alberta | 3 |
| British Columbia | 1 |
| | 30 |

Automobiles were involved in 20 level crossing accidents, auto trucks in seven, pedestrians in two and a motorcyclist in one. Chief causes were driving onto crossings in front of approaching trains and driving into side of trains. Twenty-one accidents occurred at unprotected crossings and nine at protected crossings, and 20 occurred after sunrise and 10 after sunset.

## Freight Car Condition

The Association of American Railroads' Car Service Division advises that on June 1 there were 1,762,651 railway-owned freight cars on United States Class 1 railway lines, of which 96,433, or 5.5% of total, were awaiting or undergoing repairs, and that on Canadian railway lines there were 177,894 railway-owned freight cars, of which 7,416, or 4.2%, were awaiting or undergoing repairs. In the following table are specified the numbers of the various classes of ages of such cars of total cars on lines:—

| Classes of Cars | Total Cars on Lines | Cars for Repairs | % of Total |
|---|---|---|---|
| Box, plain and ventilated | 684,541 | 34,399 | 5.0 |
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| Gondola | 295,958 | 18,731 | 6.3 |
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| Refrigerator | 18,469 | 1,014 | 5.5 |
| Tank | 7,488 | 301 | 4.0 |
| All freight cars | 1,762,651 | 96,433 | 5.5 |

**Privately-owned Cars on U.S. Lines.** —On June 1 there were 226,706 privately-owned freight cars on U.S. Class 1 lines, of which 1,062, or 0.5% of total, were waiting or undergoing repairs. Included were 107,725 refrigerator cars, of which 562 or 0.5% of total, were waiting or undergoing repairs, and 109,838 privately-owned tank cars, of which 493, or 0.4% of total, were waiting or undergoing repairs.

**Canadian Lines.** — Following are particulars of railway-owned freight cars, numbers in bad order and percentages of total, on Canadian lines on June 1:— Algoma Central and Hudson Bay, 1,490 cars on lines, 56 in bad order, 3.8%; Canadian National, 96,734, 3,947, 4.1%; Canadian Pacific, 77,318, 3,369, 4.4%; Ontario Northland, 1,425, 32, 2.2%; Toronto, Hamilton and Buffalo, 927, 12, 1.3%.