# Guide to Railway Charges for Crossing Maintenance and Construction 

Effective January 1, 2004

## INTRODUCTION

The Canadian Transportation Agency (Agency) is a quasi-judicial administrative tribunal of the federal government created under the Canada Transportation Act (hereinafter the CTA). The Agency is responsible, among other duties, for resolving disputes arising between federal railway companies and other interested parties such as utility companies, road authorities and landowners.

Under section 101 of the CTA, railways, road authorities, utility companies and private landowners may negotiate agreements for any aspect of a crossing. These agreements usually include rates to be charged for work performed and specify which parties are responsible for paying for this work. Where agreements cannot be reached by the parties, the Agency, upon receiving an application, may resolve issues relating to the construction, maintenance and apportionment of costs of road and utility crossings.

A series of guides has been prepared to highlight provisions made available pursuant to the CTA legislation. This particular guide, which replaces the Schedule A Directives, has been developed to assist the railways and road authorities, utility companies and landowners, by providing a thirdparty assessment of rail costs and setting a consistent, nation-wide rate structure for work performed by railway companies. This guide may be used by Canadian federally-regulated railways when charging for work performed at crossings, crossing warning systems, or for any other crossing-related work either agreed to by the parties or authorized by an order of the Agency.

The rates in the attached schedules are developed from Class I railway accounting data in accordance with the principles, methods and procedures established for the costing of Class I railway operations for regulatory purposes. They have been developed to illustrate the total costs incurred by Class I railway companies for work and services performed at road crossings.

## APPLICATION

Parties are encouraged to negotiate contracts which incorporate specifications, prices, time frames and the terms and conditions of any crossing-related work. However, should the Agency order a railway company to prepare its accounts in accordance with this guide for any construction or
maintenance work, or should the parties agree to make use of this guide, the rates in the attached schedules will be the rates applied. Furthermore, these rates would apply, from the effective date of this guide, to any past orders issued by the Agency or its predecessors.

It should be noted that, as indicated above, the rates in this guide are developed from Class I railway accounting data to represent total costs and therefore:

- may not accurately reflect the costs incurred by non-Class I railways; and,
- do not take into consideration any costs related to crossing maintenance and construction that are incurred by parties other than the railways.

The rates contained in this guide fall into two categories, Scheduled Maintenance Rates which cover routine maintenance of crossing warning systems, and the General Billing Guidelines which cover construction and unscheduled maintenance projects based on the actual activities performed.

## SCHEDULED MAINTENANCE OF CROSSING WARNING SYSTEMS

Scheduled maintenance is the standard preventative maintenance which is intended to ensure the reliable and safe operation of a crossing warning system. The scheduled maintenance rates cover all labour, material, vehicle costs and overheads associated with ensuring the functional operation of a crossing warning system for reasons of public safety.

For the purposes of these guidelines and to better reflect the costs involved, scheduled maintenance rates have been divided into two categories: crossing warning systems with gates (Type 1) and crossing warning systems without gates (Type 2). A breakdown of the rates to be charged for each category are contained in Schedule A of this document.

## Scheduled Maintenance Labour Rates

The scheduled maintenance labour rates include the labour costs associated with all routine service calls and maintenance work, and scheduled testing and inspections. The labour portion of the work has been divided into two categories, work performed by signal maintainers and work performed by track and roadway crews. The work performed by signal maintainers includes regular service calls and inspections, as well as all scheduled safety tests (i.e. weekly, monthly,

6 month, 1, 2, 4, and 8 year tests). It also includes such functions as painting and parts replacement. The work performed by track and roadway crews includes: the weekly testing for certain regions of the country, where track and roadway crews are used for this test in lieu of signal maintainers; flagging during routine maintenance; and, the replacement of insulated joints and temporary bond wires.

Weekly tests are performed on all crossing warning systems across Canada where railways operate. In some regions, these tests are performed by the signal maintainers and in some regions by the track and roadway crews. The system-wide time spent on the weekly tests has been apportioned between the two labour groups.

The scheduled maintenance labour rates are comprised of two components:

1. A base labour rate is calculated for both maintainers and track and roadway crews by dividing the total dollar amount paid to employees in each labour category by the total hours worked in the same labour category. The amount paid includes straight time, vacation, statutory holidays, overtime and other pay-related benefits as well as a standby charge.
2. A labour overhead rate to cover administrative expenses related to the maintenance of way and structures including line supervision above the level of foreman. It includes costs for general administration activities incurred in the management of the railway company such as accounting, finance, human resources, legal, management services and information systems. It also includes an employee benefit allowance to cover costs relating to the company's portion of employment insurance, pensions, health plans, and other benefits. This overhead rate is applied to the base labour rate.

## Scheduled Maintenance Material Rate

The scheduled maintenance material rate covers the costs associated with the replacement of basic material items and includes paint, batteries, and light bulbs as well as any other material components replaced due to normal wear. This rate also covers any additional charges for the replacement of materials such as masts, cantilevers, gates, etc. due to normal wear.

The scheduled maintenance material rate is comprised of three components:

1. The basic material cost includes the total material items purchased for crossing maintenance.
2. The material overhead rate covers the cost of administration, supervision, purchasing, inspection, accounting, and other associated costs relating to the purchase and distribution of material items. This material overhead rate is applied to the base material cost.
3. The electricity cost includes the base cost of electricity supply and consumption required to maintain the operation of a crossing warning system. No material overhead has been added to the electricity costs.

## Scheduled Maintenance Vehicle Costs

Vehicle costs incurred for transportation to and from each crossing are also included as part of the scheduled maintenance rates. Vehicle costs are developed using a per hour rate multiplied by the number of hours the vehicle is used for maintenance purposes.

## Billing Periods

The frequency and timing of billing periods for scheduled maintenance (e.g. monthly or annually, etc.) is a matter to be negotiated between the parties involved.

No scheduled maintenance rates are to be charged for crossings having only passive warning systems such as reflectorized signboards.

## GENERAL BILLING GUIDELINES

The general billing guidelines apply to all work at crossings with the exception of scheduled maintenance of crossing warning systems. Charges under the general billing directives should be billed separately from any scheduled maintenance charges and should include a full detailed description of the actual work performed and the related charges. The General Billing Guidelines include three general categories: Construction Projects, Crossing Surfaces, and Unscheduled Maintenance. The charges relating to all three categories should be calculated using the appropriate rates in Schedules B through D of this guide.

Construction-related projects which may be included under the general billing guidelines are: the initial construction, reconstruction or upgrade of a grade crossing, including the crossing surface
and/or the installation of the associated crossing warning system; the initial construction, reconstruction, or upgrade of a grade-separated crossing (no crossing warning system required) and the initial construction, reconstruction, or upgrade of a utility crossing (no crossing warning system required).

Maintenance performed by a railway company on the crossing surface of a grade crossing or on a grade separation is not included in the standard maintenance rates. As such, any costs incurred by the railway may be charged under the General Billing Guidelines.

Unlike scheduled maintenance, unscheduled maintenance refers to work performed on any crossing warning system components which is corrective in nature and is performed to restore the reliable, safe, and effective operation of crossing warning systems which are damaged due to accidents, incidents of vandalism, or unusual weather-related damage.

## Labour Charges

The labour charges allowed under any general billing project should be based on the actual time worked multiplied by an hourly labour rate. For construction purposes, the labour charges are applicable to the actual on-site installation of materials. This rate is comprised of the following three components:

1. a direct hourly wage as specified in each employee's collective agreement.
2. an unproductive factor to cover allowances for vacation, statutory holidays and other types of leave. This factor is applied to the direct hourly wage.
3. a labour overhead rate to cover administrative expenses related to the maintenance of way and structures including line supervision above the level of foreman. It includes costs for general administration activities incurred in the management of the railway company such as accounting, finance, human resources, legal, management services, and information systems. It also includes an employee benefit allowance to cover costs relating to the company's portion of employment insurance, pensions, health plans, and other benefits. This allowance is applied to the sum of the direct hourly wage and the unproductive factor.

Schedule B of this guide outlines the appropriate unproductive factor and labour overhead rate to be applied to direct wage rates for labour costs that fall into the General Billing Guidelines.

## Material Charges

Charges for any material items, including any pre-wired and/or pre-assembled components, used in unscheduled maintenance or construction work include two components:

1. the actual purchase price (including provincial sales tax) paid by the railway for any material item.
2. a material overhead rate which covers the charges associated with administration, supervision, purchasing, accounting, and other associated costs, such as utilities. It also includes in-house design and engineering work, legal issues, inspections and quality control, and customs clearance activities.

Schedule C of this guide outlines the appropriate material overhead rate to be applied to all material charges used in unscheduled maintenance and construction projects.

## Contracting Equipment and Services

Charges for any service contracts such as the contracting of non-railway owned equipment, services performed by any outside parties and any freight charges related to the transportation of materials, shall be based on the actual invoiced contract price. A contract overhead rate can be added to the invoice to cover basic administration costs as outlined in Schedule D,

## Contracting Equipment and Services.

## Rental Rates of Railway Equipment

Where railway-owned equipment is used for projects that fall under the General Billing Guidelines the Agency recommends that daily rental rates be no greater than the rates indicated in the list attached as Schedule E, Equipment Rental Rates.

The rental charges may include the actual time required for moving railway-owned equipment from its home base or point of storage to the project site and back again, provided the railway equipment is not being transported directly to the site of another project. If the equipment goes directly from the site of one project to another, the latter project cannot be charged for the first
movement.

The methodology to be employed is outlined in Schedule E, Equipment Rental Rates.

## Transportation of Equipment Charges

Transportation expenses incurred for the movement of railway-owned equipment to and from job sites may be charged except when the equipment moves directly from one project to another under its own power (excluding locomotives). Bills can include charges for the transportation of cars, cars loaded with roadway machines and other miscellaneous equipment to work sites either by rail or road. Charges for transporting equipment in work trains cover all operating and ownership costs associated with the train movement of the equipment to the work site. Bills can also include charges for work trains used for storage purposes.

Schedule D, Transportation Charges lists the allowable hourly charges (or fractions thereof) for locomotives, work trains, equipment transported in work trains, revenue trains and by road, as well as, trackage charges.

Transportation charges for the movement of railway employees to and from job sites are allowed for projects billed under the General Billing Guidelines.

## Meals and Lodging

The Meals and Lodging section of Schedule $\boldsymbol{D}$ also outlines the maximum allowance for meals and lodging for railway construction employees working on a project. This allowance may be charged only when employees are entitled to it by their collective agreement.

The daily allowance is based on a minimum 8 hours of eligible work related directly to the project. When less than 8 hours of work is performed, the allowance to be paid is computed on the basis of an hourly prorate of the per diem rate. When overtime is performed, no hourly prorate of the per diem rate will be allowed. Additional allowances will not be made for any accommodation for railway employees, supplies, or any other costs in connection with meals and lodging.

## SALVAGE VALUES

Proper credit is allowed for salvaged crossing warning system materials. Crossing warning system materials removed from service for re-use are to be salvaged at 60 percent of current new price, and when used again, charged out at the same percentage. Material such as relays or other apparatus which must be repaired or rebuilt shall be salvaged at 25 percent of the current new price, and when used again after being repaired, charged out at 75 percent of current new price.

## INJURY OR DEATH

Payment of compensation claims for injury or death is not allowed.

## DISCONTINUANCE OF RAIL OPERATIONS

The provisions of the CTA cease to apply to any crossings on a line once the operation of that line is discontinued pursuant to Division V of the CTA. Should a railway temporarily cease operations pursuant to Transport Canada Regulations, a reduced Scheduled Maintenance Rate may apply to cover the ongoing fixed maintenance costs.

## RENEWAL

The Guide to Railway Charges for the Maintenance and Construction of Road Crossings will be reviewed by the Agency on an ongoing basis but the renewal of rates in this document will be carried out no later than every two years from the date of issuance.

## RAILWAY CONTACTS

Canadian Pacific Railway<br>Non-Freight Billable Projects<br>Gulf Canada Square, Suite 600<br>401 - 9th Avenue S.W.<br>Calgary, Alberta<br>T2P 4Z4<br>Phone: (403) 319-3053<br>Fax:<br>(403) 319-3640

## Canadian National Railway

Manager Regulatory Affairs:
Phone: (514) 399-6416
Fax:: (514) 399-4296

## DEFINITIONS

road
road crossing
includes any way or course, whether public or not, available for vehicular or pedestrian use.
that part of a road that passes over, under or across a line of
crossing warning systems
crossing surface
maintenance
railway and includes any structure supporting or protecting that part of the road or facilitating the crossing.
an active system consisting of lights, bells and/or gates used at road/railway crossing intersections to warn the public of the presence or approach of rail traffic.
means the planking, pavement or other suitable material placed between the rails and to the ends of the ties for the full width of the road crossing.
work which is required to keep an existing facility in its fully functional condition.
damage to crossing warning systems due to exceptional forces of nature such as lightning, high winds, extreme temperature and humidity, which are inconsistent with normally expected weather to the local geography.

## AGENCY ASSISTANCE

If any party wishes to seek Agency assistance in resolving issues relating to work performed at crossings, an application must be made in writing, include all supporting information, be signed by the applicant and be sent to the Agency at the following address:

## Secretary

Canadian Transportation Agency
Ottawa, Ontario K1A 0N9
If you wish to hand deliver or courier your application, please use the following address:

## Secretary

Canadian Transportation Agency
15 Eddy Street
17th Floor, Mailroom
Gatineau, Quebec J8X 4B3
Fax: (819) 997-6727

In addition, a copy of the application should be sent to each other party involved.

## PROCESS

In accordance with its General Rules, after receiving an application, the Agency ensures that each
interested party has the opportunity to comment on the application and any disputed issues. In general, the Agency invites the other interested parties to comment within 30 days, and then allows the applicant 10 days to comment. The Agency reviews all material submitted, makes its final decision or determination, and issues the necessary decisions or orders.

The Agency must process all applications within 120 days of receiving the originating documents, unless the parties to the application agree to an extension.

Parties are encouraged to continue any negotiations even though an application may be before the Agency.

## DECISIONS AND APPEALS

Any Agency decision is subject to the following conditions:

1. it is binding upon the parties and remains in effect until it is amended or rescinded; or until the line is no longer subject to Agency jurisdiction;
2. it may be reviewed by the Agency, if there are new facts or circumstances;
3. it may be appealed to the Federal Court on a matter of law or jurisdiction, within 30 days of the order or decision; and
4. it may be appealed to the Governor in Council at any time.

## CONFIDENTIALITY

All documents filed with the Agency become part of the public record and may be made available for public viewing. However, in accordance with the Agency's General Rules, a claim for confidentiality can be made.

## OTHER AVAILABLE DOCUMENTS

1. Agency General Rules
2. Determining Net Salvage Value
3. Environmental Assessment Procedures
4. Guide to Certificates of Fitness
5. Guide to Private (Farm) Crossings of Railways
6. Guide to Apportionment of Costs of Grade Separations
7. Guide to Railway Crossings of Other Railways

## 8. Guide to Railway Line Construction

9. Guide to Railway Operation Compensation
10. Guide to Railway Works Cost Apportionment
11. Guide to Relocation of Railway Lines in Urban Areas
12. Guide to Road Crossings of Railways
13. Guide to Utility Crossings of Railways
14. Railway Safety Management Systems Regulations
15. Railway Third Party Liability Insurance Coverage Regulations
16. Resolving Disputes Through Mediation
17. The Canada Transportation Act and the Rail and Marine Transportation Branch
18. The Rail Infrastructure Directorate: A Guide
19. Transfer and Discontinuance of Railway Line Operations and Railway Track Determinations

The above are available in alternate formats.

## FOR MORE INFORMATION

For more information or copies of the above documents, please contact one of the following staff members of the Rail Infrastructure Directorate:

## Director

(819) 953-0327

## Manager, Approvals and Determinations

(819) 953-0365

## Manager, Engineering and Environmental Services

(819) 953-2117

Fax: (819) 953-8353
Toll Free: 1-888-222-2592
TTY: 1-800-669-5575 or (819) 953-9705
For more information on the Canada Transportation Act, the Agency and its responsibilities, or Agency decisions and orders, you can access the Agency's Web site at www.cta.gc.ca.

| 2003 -STANDARD MAINTENANCE RATE <br> TYPE 1 - CROSSING WARNING SYSTEMS WITH GATES |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | TOTAL ANNUAL CHARGES |  |
| WORK PERFORMED BY SIGNAL MAINTAINERS |  |  |  |
| Annual Labour Hours | Labour Rate Note 1 | MAINTAINERLABOUR |  |
| a | $b$ | $c=a \times b$ |  |
| 70 | \$58.60 | \$ | 4,102.00 |
| WORK PERFORMED BY TRACK AND ROADWAY CREWS |  | TRACK \& ROADWAY LABOUR |  |
| Annual Labour Hours | Labour Rate Note 1 |  |  |
| $a$ | b | $c=a \times b$ |  |
| 13 | \$45.20 |  | 587.60 |
| MATERIAL EXPENSES |  | MATERIALS |  |
| Material Cost | Electricity Cost |  |  |
| Note 2 | Note 3 |  |  |
| \$840.00 | \$256.50 |  | 1,096 50 |
| VEHICLE COST |  |  |  |
| Rate Per Hour | Total Hours | VEHICLES |  |
| a | $b$ | $c=a \times b$ |  |
| \$8.50 | 83 | \$ | 705.50 |
| TOTAL ANNUAL RATE | @100\% | \$ | 6,491.60 |
|  | @ $50 \%$ | \$ | 3,245.80 |
| MONTHLY RATE | @100\% | \$ | 540.96 |
|  | @ $50 \%$ | \$ | 270.48 |

Note 1: A base labour rate ( $\$ 32.56 / \$ 25.11$ ) is calculated by dividing the total dollar amount paid to employees in each labour category which includes straight time, vacation, s tatutory holidays, overtime and other paid related benefits as well as a standby charge, by the total hours worked in the same labour category. A labour overhead rate ( $80 \%$ ) to cover adm inistrative expenses and costs relating to the company's portion of em ployee benefits is applied to the base labour rate.
Note 2: The basic material cost includes the total material items purchased for crossing maintenance plus a material overhead rate ( $54 \%$ ) which covers the cost of administration, supervision, purchasing, inspection and accounting relating to the purchase and distribution of material items.
Note 3: No overhead has been applied to the electricity cost.

## SCHEDULE A

| 2003 -STANDARD MAINTENANCE RATE |
| :---: | :---: | :---: |
| TYPE 2 - CROSSING WARNING SYSTEMS WITHOUT GATES |

[^0]
## SCHEDULE B

Cost Components to be Added to Employee's Base Wage Rate To Develop Labour Charges Applicable Under the General Billing Guidelines

| COST <br> COMPONENT | UNSCHEDULED <br> MAINTENANCE | CONSTRUCTION <br> PROJECTS |
| :--- | :---: | :---: |
| Unproductive Factor | $\%$ | $\%$ |
|  | 20 | 20 |
| Overhead Rate: |  |  |
| Administration | 46 | 46 |
| Working Capital | 1 | 4 |
| Associated Costs | 5 | 5 |
| Employee Benefit Allowance | 28 | 28 |
| Total Overhead Rate: | 80 | 83 |

## SCHEDULE C

$$
\begin{aligned}
& \text { Cost Components of the Material Overhead Rate } \\
& \text { to be Applied to Actual Material Costs Under the } \\
& \text { General Billing Guidelines }
\end{aligned}
$$

|  | UNSCHEDULED <br> MAINTENANCE | CONSTRUCTION <br> PROJECTS |
| :---: | :---: | :---: |
| COST CATEGORY | $\%$ | $\%$ |
| Administration | 48 | 48 |
| Working Capital | 1 | 5 |
| Associated Costs | 5 | 5 |
| TOTAL | 54 | 58 |

## SCHEDULE D

## 2003 Miscellaneous Charges

## Meals and Lodging

Meals and Lodging allowance
$\$ 86.75$ per person per day
Transportation Charges
Revenue trains and hi-railers

Equipment transported by highway
Work Train using one Locomotive

Trackage Charge
Freight Car rentals
$\$ 0.44$ per car mile for each car/vehicle serving the project
(minimum 50 miles, maximum 250 miles)
$\$ 0.44$ per vehicle mile
(minimum 50 miles, maximum 250 miles).
$\$ 299.44$ per hour for first 8 hours
$\$ 356.84$ per hour for 9th and subsequent hours
$\$ 184.64$ per hour per additional locomotive

Contracting Equipment and Services
Allowance for contract overheads:
3\% on amounts up to \$50,000
$\mathbf{2 \%}$ on amounts of $\$ 50,000$ up to $\$ 100,000$
$1 \%$ on the excess of $\$ 100,000$

## RENTAL RATES

| Billing | Per Diem <br> Rumber <br> Rental Rate |
| :--- | :---: |

## Methodology to be applied to calculation of operation costs:

No overheads are to be applied to the rental rates listed below.
Rental rates do not include the costs of operating equipment. Charges for employees operating equipment, equipment supplies and fuel can be charged in addition to rental rates. These labour charges can include the appropriate statutory and other leave, and supervision and administration overheads (see above).

These rental rates apply for each day of 8 hours that the equipment actually works on a project. When more than 8 hours work is performed on any one day by the rented item, additional rental can be charged computed on the basis of an hourly prorate of the per diem rate.

1. MOTIVE POWER
(1) Road freight (diesel) per 100 HP
10100
(2) Road switcher (diesel) per 100 HP
10101
(3) Yard (diesel) per 100 PH
10201
2. REVENUE EQUIPMENT

| (1) | Caboose | 20101 | 40 |
| :--- | :--- | :--- | :--- |
| $(2)$ | Freight cars | 20201 | 28 |
| $(3)$ | Refrigerator cars | 20301 | 27 |

## 3. WORK CARS

(1) Specialty

| (a) | Dynamometer car | 30111 | 421 |
| :--- | :--- | ---: | ---: |
| (b) | Track geometry car | 30113 | 653 |
| (c) | Rule instruction car | 30115 | 72 |
| (d) | Test cars | 30116 | 818 |
|  | (i) Test - Instrument car | 30118 | 4,099 |
|  | (ii) Test - Computer car | 30119 | 87 |
| (e) | Road repair car |  |  |
| (f) | Rail loaders | 30120 | 677 |
|  | (i) Power car | 30121 | 120 |
|  | (ii) Threader car | 30122 | 78 |
|  | (iii) Common car | 30131 | 2,569 |
| (g) | Jointed rail pick up equipment | 30141 | 85 |
| (h) | Tie unloader complete with transporter car | 30151 | 14 |
| (i) | Track inspection car | 30153 | 32 |
| (j) | Air brake repeater car |  |  |

## RENTAL RATES

| Billing | Per Diem <br> Rental Rate |
| :--- | :---: |

(2) Railway

| (a) | Air dumps | 30212 | 110 |
| :--- | :--- | :--- | ---: |
| (b) | Rail carrying cars | 30221 | 56 |
| (c) | Tie carrying cars | 30231 | 38 |
| (d) | Tank cars |  |  |
|  | (i) water | 30241 | 35 |
|  | (ii) oil | 30242 | 21 |

(3) Work equipment
(a) Rerailer hydraulic

30312
98
(b) Converted box cars tool, supply, generator, etc. 30321

12
(c) Converted passenger-cars 30331

34 (tools, storage, combination, etc.)
(d) Ballast car

30332
37
(e) Flat car 30333
(4) Accommodation cars (white fleet)
(a) BKD cars
(i) 2-man (welders, machine operators) 30411
(ii) 4-man

30412
20
(b) Sleepers cook, foreman (Extra Gang) sleeper 30422

35

30431
15
(c) Kitchen - extra gang

30433
67
(d) Kitchen - diner
(e) Diner - extra gang 30435

26
16
(f) Cooler - storage (provision car) 30437

35
(g) Recreation - wash 30441

28
(h) Recreation - extra gang (foreman, gang, supervisor) 30443
(i) Module (fuel, water, generator, washroom) 30453
(j) Generator (drying room, tool gang) car 30455

## 4. AUTOMOTIVE EQUIPMENT

(1) Transportation (of men and materials)

| (a) | Automobiles | 40111 | 27 |
| :--- | :--- | :--- | ---: |
| (b) | Automobiles with Hi-Rail | 40112 | 62 |
| (c) | Buses | 40121 | 45 |
| (d) | Passenger bus (GVW 8350) | 40131 | 33 |
| (e) | Pick up trucks |  |  |
|  | (i) Pick up or panel truck | 40141 | 28 |
|  | (ii) Pick up and panel with Hi-Rail | 40142 | 44 |
|  | (iii) Pick up with crew cab and Hi-Rail | 40144 | 66 |
| (f) | Station wagon | 40151 | 31 |
| (g) | Stake body trucks |  |  |
|  | (i) Stake body - up to 50 ton | 40161 | 56 |
|  | (ii) Hi-Rail 5 Tons | 40162 | 127 |
|  | (iii) Hi-Rail 3 Tons | 40163 | 223 |
| (h) | Flat deck trucks | 40164 | 93 |
| (i) | Flat deck trucks with Hi-Rail | 40165 | 288 |
| (j) | Truck with crew compartment | 40171 | 57 |
|  | (i) 5 ton with 12 man cab | 40173 | 31 |

## RENTAL RATES

|  |  |  | Billing Number | Per Diem Rental Rate \$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | (iii) 6-man crew cab and 8 foot box | 40175 | 33 |
|  |  | (iv) signal dept. with 4-man cab work shop | 40177 | 39 |
|  |  | (v) 3 ton van body | 40181 | 42 |
|  |  | (vi) stake body | 40183 | 67 |
|  | (k) | Fuel truck | 40191 | 87 |
|  | (I) | Vacuum truck | 40196 | 463 |
| (2) | Dum | trucks |  |  |
|  | (a) | Up to 5 ton capacity | 40211 | 80 |
|  | (b) | Up to 12 ton capacity | 40216 | 81 |
| (3) | Trail |  |  |  |
|  | (a) | Low bed (high boy) |  |  |
|  |  | (i) up to 15 ton capacity | 40311 | 20 |
|  |  | (ii) 16 to 30 ton capacity | 40313 | 42 |
|  |  | (iii) 30 to 39 ton capacity | 40315 | 119 |
|  |  | (iv) over 40 tons | 40316 | 155 |
|  | (b) | Bunk, diner, foreman, etc. | 40341 | 29 |
|  | (c) | DMotor homes | 40342 | 66 |
|  | (d) | Trailer homes $10 \mathrm{ft} \times 52 \mathrm{ft}$ | 40343 | 77 |
| (4) | Spec | ialty |  |  |
|  | (a) | Emergency response vehicle | 40411 | 37 |
|  | (b) | Maintenance of way or B\&B truck-crew cab and tool compartments | 40421 | 80 |
|  | (c) | Signal dept. mobile workshop complete with hydraulic hoist, generator and crew cab | 40427 | 56 |
|  | (d) | Trucks signal dept. mobile workshop | 40428 | 137 |
|  | (e) | Pole line construction truck <br> - with aerial bucket and post hole digger | 40431 | 133 |
|  | (f) | Trucks pole line constr. with aerial bucket | 40432 | 212 |
|  | (g) | Car dept. truck - hydraulic crane and winch | 40441 | 72 |
|  | (h) | Mechanical dept. truck - road repairer with boom and winch | 40444 | 108 |
|  | (i) | Road repair truck 43000 GVW winch 5 1/2 ton crane, tandem power wheels | 40447 | 146 |
|  | (j) | Mobile repair trucks | 40448 | 56 |
|  | (k) | Tractor - pneumatic tired with 5th wheel (trailer attachment) | 40471 | 134 |
|  | (1) | Trucks tractor with Hi-ab crane | 40472 | 262 |
|  | (m) | Chaser trucks |  |  |
|  |  | (i) Mechanical | 40482 | 166 |
|  |  | (ii) Hi-Rail/crane | 40483 | 501 |
|  | ( n ) | Railer - unimog road railer | 40490 | 420 |
| (5) | Specialty attachments |  |  |  |
|  | (a) | Snow blower - tractor | 40531 | 218 |
|  | (b) | Snow blower - truck |  |  |
|  |  | (i) small | 40536 | 163 |
|  |  | (ii) larger | 40541 | 561 |
|  | (c) | Caterpillar - with snow bucket | 40542 | 457 |

## RENTAL RATES

| Billing | Per Diem <br> Rental Rate |
| :--- | :---: |

## 5. ROADWAY MACHINES

(1) Rail gang oriented
(a) Rail change-out machine (RCO)
(b) Centreline marker for RCO
(c) Tie plug inserter

111
6,664
(d) Adzer
(e) Creosote sprayer

5012
98
50131
38
(f) Pregaugr, tie dill bronco 50134
(f) Pre-gauger, tie drill, bronco

50134
15
(g) Vibrator unit for CWR
(h) Rail heater (dual)
(i) Hydraulic rail expander/puller
(j) Track wrench

50137
58
) Spiking machines
(i) spike drivers
(A) hydrauli

50163
(B) mechanical 50165

33
(C) maintenancce 50167

286
(ii) spike pullers

| (A) single rail | 50171 | 24 |
| :--- | ---: | ---: |
| (B) transverse | 50173 | 14 |
| (C) spike pullers - dual rail | 50174 | 67 |
| (D) spike puller for p-811 | 50176 | 229 |
| anchor/clip applicator | 50181 | 144 |
| line indicator | 50182 | 39 |
| buggies | 50190 | 67 |

(2) Ballast gang oriented
(a) Ballast distributor

50214
(b) Ballast plow-undertrack 50217

8
(c) Undercutter and cleaner

50221
3,600
(d) Plasser ballast undercutter cleaner

50222
3,536
(e) Track gopher

50223
538
(f) Undercutter - switch

50224
382
(g) Ballast sled-undertrack

50227
20
(h) Ballast unloader

50230
354
(i) Autosled/autoplow 50231

1,903
(j) Track skeletonizer/cribber 50236 2,001
(k) Ballast regulator - on track $50241 \quad 320$
(I) Ballast regulator - broom
(i) single

50244
38
(ii) dual (large) $50248 \quad 83$
(iii) Kershaw double broom 50249 396
(m) Ballast compactor 50251

290
(n) Jacks (mechanical) 30257
(o) Track liner-
(i) small 50261
(ii) large 50266
(iii) plasser high prod. track liner 50267
(p) tamper
(i) spot
50271
145
(ii) junior

## RENTAL RATES

|  |  | Billing <br> Number | Per Diem Rental Rate \$ |
| :---: | :---: | :---: | :---: |
|  | 459 |  |  |
|  | (iii) 8 tool |  | 50273 |
|  | 664 |  |  |
|  | (iv) 16 tool combo/tamper | 50274 | 652 |
|  | (v) 32 tool duomatic tamper | 50275 | 1,172 |
|  | (vi) 32 tool (CAT) tamper | 50276 | 1,632 |
|  | (vii) 16 tool (CAT) tamper | 50277 | 1,176 |
|  | (viii) 16 tool switch tamper | 50278 | 355 |
|  | (ix) spot air | 50279 | 113 |
|  | (x) tamper crib and shoulder | 50280 | 438 |
|  | (q) Winch car | 50291 | 71 |
| (3) | Tie gang oriented |  |  |
|  | (a) Tie bed |  |  |
|  | (i) scarifier | 50311 | 226 |
|  | (ii) cribber | 50312 | 81 |
|  | (iii) scarifier / tie end remover | 50313 | 157 |
|  | (b) Scarifier tie inserter/tie end remover |  |  |
|  | (i) maintenance | 50321 | 5 |
|  | (ii) light | 50324 | 37 |
|  | (iii) heavy | 50327 | 365 |
|  | (c) Tie axe/shearer/saw |  |  |
|  | (i) maintenance | 50331 | 102 |
|  | (ii) production | 50333 | 272 |
|  | (d) Tie renewer |  |  |
|  | (i) Tie laying machine ( $\mathrm{p}-811$ ) | 50340 | 4,646 |
|  | (ii) production | 50341 | 45 |
|  | (iii) maintenance | 50344 | 240 |
|  | (e) Tie spacer | 50351 | 148 |
|  | (f) Rail lifter | 50352 | 21 |
|  | (g) Tie crane | 50366 | 146 |
|  | (h) Tie unloading crane | 50367 | 251 |
|  | (i) Lucky tie crane rr-300 | 50368 | 868 |
|  | (j) Tie plate broom | 50371 | 141 |
|  | (k) Tie extractor | 50382 | 1,199 |
|  | (I) Tie bundling car | 50383 | 28 |
| (4) | Spreader/ditcher |  |  |
|  | (i) Mechanical | 50411 | 182 |
|  | (ii) Hydraulic | 50412 | 465 |
| (5) | Snow plow | 50511 | 61 |
| (6) | Regulator snow plow | 50611 | 436 |
| (7) | Flanger | 50711 | 345 |
| (8) | Trackmobile | 50811 | 266 |
| (9) | Snowmobiles | 50911 | 7 |
| (10) | Base machine - attached brush cutter | 50915 | 136 |

## RENTAL RATES

|  |  | Billing Number | Per Diem Rental Rate \$ |
| :---: | :---: | :---: | :---: |
| (11) | Fork lift trucks - all warehouse sizes | 51011 | 36 |
| (12) | Station platform cleaner | 51111 | 37 |
| (13) | Fork lift - industrial type for wharf and platform use | 51211 | 13 |
| (14) | Trencher <br> (i) back hoe attachment <br> (ii) basic | $\begin{aligned} & 51311 \\ & 51312 \end{aligned}$ | 10 79 |
| (15) | Track motor car - WICKHAM | 51410 | 288 |
| (16) | Track motor cars | 51411 | 11 |
| (17) | Cranes - on track <br> (a) Self-propelled |  |  |
|  | (i) under 10 ton capacity | 51511 | 117 |
|  | (ii) 11 to 30 ton capacity | 51514 | 377 |
|  | (iii) 40 to 50 ton capacity | 51517 | 733 |
|  | (iv) 51 to 60 ton capacity | 51518 | 835 |
|  | (b) Crew crane with transport | 51600 | 642 |
|  | (c) Special cranes |  |  |
|  | (i) 100 ton capacity | 51611 | 209 |
|  | (ii) 120 ton capacity | 51612 | 250 |
|  | (iii) 150 ton capacity | 51613 | 168 |
|  | (iv) 160 ton capacity | 51614 | 260 |
|  | (v) 200 ton capacity | 51615 | 387 |
|  | (vi) 250 ton capacity | 51616 | 709 |

(18) Cranes - off track - self propelled
(a) crawler
$\begin{array}{lll}\text { (i) up to } 1 / 2 \text { cu. yd. capacity } & 51711 & 170 \\ \text { (ii) } & 51713 & 117\end{array}$
(ii) $5 / 8$ to 1 yd. capacity 51713

117
(iii) $11 / 4$ to $11 / 2$ cu. yd. capacity 51715
(iv) 2 cu. yd. capacity
(b) Truck mounted
(i) 11 ton to $121 / 2$ ton $51722 \quad 184$
(ii) 13 ton to 18 ton 51723

345
(c) Pneumatic tired complete with $3 / 4 \mathrm{cu}$. yd. shovel

51731
155
(d) Mobile
(i) 50 and 60 ton capacity

51741
432
(ii) 75 ton capacity

51745
547
(iii) 100 ton capacity
(iv) 125 ton capacity and over

51746
875
51747
1,638
(19) Cranes - attachments
(a) Clamshell buckets
(i) $1 / 4$ to $11 / 4$ cu. yd. capacity
51821
13
(ii) $11 / 2$ to 2 cu. yd. capacity
(b) Dragline $1 / 2$ to $11 / 4$ cu. yd. capacity
(c) Rock grapple 2 to 4 ton capacity
(d) Snow plow
$51862 \quad 20$

## RENTAL RATES

|  |  |  | Billing Number | Per Diem Rental Rate \$ |
| :---: | :---: | :---: | :---: | :---: |
|  | (e) | Crane snowblower | 51863 | 113 |
|  | (f) | Folding lead (pile) | 51871 | 104 |
|  | (g) | Pile drivers - hammers - diesel up to 15,000 foot lbs/blow | 51873 | 51 |
|  | (h) | Electric magnets - all sizes | 51881 | 15 |
| (20) <br> (21) | Attachment misc. |  | 51911 | 16 |
|  | Tractors |  |  |  |
|  | (a) | Crawler type |  |  |
|  |  | (i) drawbar H.P. 25-39 | 52011 | 191 |
|  |  | (ii) drawbar H.P. 40-59 | 52012 | 45 |
|  |  | (iii) drawbar H.P. 60-124 | 52013 | 85 |
|  |  | (iv) drawbar H.P. 125-224 | 52014 | 60 |
|  | (b) | Farm type - pneumatic tired |  |  |
|  |  | (i) drawbar H.P. up to 50 H.P. | 52021 | 65 |
|  |  | (ii) drawbar H.P. 71 to 175 | 52023 | 38 |
|  | (c) | On/off track utility crane (Speedswing, Atlas etc.) | 52031 | 366 |
|  | (d) | Wreckdozer | 52041 | 715 |
| (22) | Tractor attachments |  |  |  |
|  | Far | type - pneumatic tires |  |  |
|  | (a) | backhoe | 52121 | 21 |
|  | (b) | front end loader | 52123 | 7 |
|  | (c) | mowers - weed and grass | 52124 | 33 |
| (23) | Scrapers - carry all, self loading capacity |  |  |  |
|  | (a) | Heavy duty (over 110H.P.) | 52216 | 153 |
|  | (b) | Graders | 52217 | 302 |
|  | (c) | Gradall | 52218 | 686 |
| (24) | Front end loaders |  |  |  |
|  | (a) | Less than 3 cubic yards | 52311 | 70 |
|  | (b) | 5 cubic yards | 52314 | 208 |
|  | (c) | 7 cubic yards | 52316 | 642 |
|  | (d) | Scrap loaders | 52317 | 149 |
| (25) | Generators - diesel |  |  |  |
|  | (a) | 15 K.W. output | 52412 | 15 |
|  | (b) | 16 to 25 K.W. output | 52413 | 21 |
|  | (c) | 26 to 50 K.W. output | 52414 | 39 |
|  | (d) | 51 to 75 K.W. output | 52415 | 44 |
| (26) | Welders |  |  |  |
|  | (a) | Diesel electric |  |  |
|  |  | (i) 200 to 300 amp | 52511 | 16 |
|  |  | (ii) 301 to 400 amp | 52512 | 20 |
|  |  | (iii) over 400 amp | 52513 | 42 |
|  | (b) | Gas electric |  |  |
|  |  | (i) up to 300 amp | 52521 | 7 |
|  |  | (ii) 301 to 500 amp | 52522 | 21 |

## RENTAL RATES

|  |  |  | Billing <br> Number | Per Diem Rental Rate \$ |
| :---: | :---: | :---: | :---: | :---: |
|  | (c) | Welder cwr - flashbutt machine automatic | 52523 | 1,517 |
| (27) | Compressors - air - diesel |  |  |  |
|  |  | Wheel mounted, rubber tired |  |  |
|  |  | (i) 81 to 125 C.F.M. | 52612 | 15 |
|  |  | (ii) 176 to 210 C.F.M. | 52614 | 42 |
|  |  | (iii) 281 to 300 C.F.M. | 52616 | 63 |
|  |  | (iv) over 300 C.F.M. | 52617 | 79 |
|  |  | Wheel mounted - rail (over 210 C.F.M.) | 20622 | 26 |
|  |  | Skid mounted (175 to 210 C.F.M.) | 52631 | 23 |
|  | (d) | Tractor mounted (up to 125 C.F.M.) | 52641 | 14 |
| (28) | Compressor - air - gas (Wheel mounted, rubber tired) |  |  |  |
|  |  | up to 80 C.F.M. | 52711 | 6 |
|  |  | 81 to 125 C.F.M. | 52712 | 15 |
| (29) | Con | ete mixers - $6 \mathrm{cu} . \mathrm{ft}$. and over portable | 52812 | 8 |
| (30) | Spa | ers | 53011 | 6 |
| (31) | Saws |  |  |  |
|  | (a) | Brushcutter | 53121 | 395 |
|  | (b) | On track mower | 53122 | 51 |
|  | (c) | Rail |  |  |
|  |  | (i) portable blade (reciprocal type) | 53151 | 5 |
|  |  | (ii) wheel mounted - abrasive | 53161 | 68 |
| (32) | Drills |  |  |  |
|  | (a) | Rock | 53231 | 38 |
|  | (b) | Wagon | 53241 | 83 |
| (33) | Grinders - rail |  |  |  |
|  | (a) | Surface rail |  | 53331 |
|  | (b) | Slotter | 53356 | 5 |
| (34) | Miscellaneous |  |  |  |
|  | (a) | Generator, steam, portable | 53413 | 16 |
|  | (b) | Grouter - all types, sizes | 53418 | 15 |
|  | (c) | Hammers - large jack hammer | 53424 | 16 |
|  | (d) | Loading ramp | 53436 | 5 |
|  | (e) | Pavement rollers up to 5 tons | 53441 | 15 |
|  | (f) | Flaw detectors - thermite weld | 53461 | 8 |
|  | (g) | Thermite weld shearer | 53477 | 15 |
|  | (h) | Tower - light - portable | 53481 | 13 |
|  | (i) | Loaders |  |  |
|  |  | (i) Conveyor type | 53498 | 225 |
|  |  | (ii) Material scrap | 53499 | 36 |
|  | (j) | Water blast cleaners | 53500 | 49 |
|  | (k) | Steam generators - portable steam boilers | 53501 | 26 |
|  | (I) | Bridge lifting assembly | 53502 | 26 |


[^0]:    Note 1:
    A base labour rate ( $\$ 32.56 / \$ 25.11$ ) is calculated by dividing the total dollar amount paid to employees in each labour category which includes straighttime, vacation, statutory holidays, overtime and other paid related benefits as well as a standby charge, by the total hours worked in the same labour category. A labour overhead rate ( $80 \%$ ) to cover administrative expenses and costs relating to the company's portion of em ployee benefits is applied to the base labour rate.
    Note 2: The basic material cost includes the total material items purchased for crossing maintenance plus a material overhead rate (54\%) which covers the cost of administration, supervision, purchasing, inspection and accounting relating to the purchase and distribution of material items.
    Note 3: No overhead has been applied to the electricity cost.

