



## **RULES RESPECTING TRACK SAFETY**

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## **RULES RESPECTING TRACK SAFETY**

### **CONTENTS**

#### **PART I - GENERAL**

1. Short Title
2. Interpretation
3. Scope
4. Application
5. Excepted Track
6. Responsibility of the Railway Company
7. Restoration or Renewal of Track Under Traffic Conditions
8. Measuring Track not Under Load
9. Track Supervisors
10. Track Inspectors
11. Licences
12. Certification
13. Track Inspection

**PART II - TRACK SAFETY RULES**

## SUBPART A - Classes of Track: Operating Speed Limits

## SUBPART B - Roadbed

- I. Drainage
- II. Vegetation

## SUBPART C - Track Geometry

- I. Scope
- II. Gauge
- III. Alignment
- IV. Curves: Elevation and Speed Limitations
- V. Elevation of Curved Track: Runoff
- VI. Track Surface
- VII. Interpolation of Speeds between Track Classes

## SUBPART D - Track Structure

- I. Ballast: General
- II. Crossties
- III. Defective Rails
- IV. Rail End Mismatch
- V. Rail Joints
- VI. Tie Plates
- VII. Rail Anchoring
- VIII. Rail Fastenings
- IX. Continuous Welded Rail (CWR)
- X. Rail Wear
- XI. Turnouts and Track Crossings Generally
- XII. Switches
- XIII. Frogs
- XIV. Spring Rail Frogs
- XV. Self-Guarded Frogs
- XVI. Frog Guard Rails

## SUBPART E - Track Appliances and Track Related Devices

- I. Scope
- II. Derails

## SUBPART F - Inspection

- I. Scope
- II. Track Inspections
- III. Switch and Track Crossing Inspections
- IV. Inspection of Rail
- V. Special Inspections
- VI. Inspection Records

## **PART I - GENERAL**

### **1. SHORT TITLE**

- 1.1 These Rules may be cited as the Railway Track Safety Rules.

### **2. INTERPRETATION**

In these Rules:

- 2.1 "licence" means a document issued by a railway company pursuant to section 11 that indicates the name and occupational category of the licence holder; (licence)
- 2.2 "line of track" or "track" means a railway of any length including yard tracks, sidings, spurs and other tracks auxiliary thereto, and including the right-of-way and the structures supporting or protecting the track or facilitating drainage from the track; (voie)
- 2.3 "main track" means a track extending through yards and between stations, upon which trains or engines are authorized and governed by one or more methods of control; (voie principale)
- 2.4 "railway company" means a railway company that is under the jurisdiction of the Railway Safety Act; (compagnie de chemin de fer)
- 2.5 "railway crossing" means the crossing of two tracks; (traverse)
- 2.6 "track inspector" means an employee of the railway company appointed in this capacity; (inspecteur de la voie)
- 2.7 "track supervisor" means an employee of the railway company appointed in this capacity. (superviseur de la voie)

### **3. SCOPE**

- 3.1 This part prescribes initial minimum safety requirements for railway track that is part of the general railway system of transportation. The requirements prescribed in this part apply to specific track conditions existing in isolation. Therefore, a combination of track conditions, none of which individually amounts to a deviation from the requirements in this part, may require remedial action to provide for safe operations over that track. Nothing in these rules prevents a railway company from prescribing a higher level of maintenance.

**4. APPLICATION**

- 4.1 These Rules apply to all railway companies operating on standard gauge track.
- 4.2 The purpose of these Rules is to ensure the safe operation of trains on standard gauge track owned by, operated on or used by a railway company.

**5. EXCEPTED TRACK**

- 5.1 A railway company may designate a segment of track as excepted track provided that:
  - a) the segment is identified in the timetable, special instructions, general order, or other appropriate records which are available for inspection during regular business hours;
  - b) the identified segment is not located within 30 feet of an adjacent track which can be subjected to simultaneous use at speeds in excess of 10 miles per hour;
  - c) the identified segment is inspected in accordance with the frequency specified for Class 1 track;
  - d) the railway conducts operations on the identified segment under the following conditions:
    - i) no train shall be operated at speeds in excess of 10 miles per hour; and
    - ii) no occupied passenger train nor train carrying dangerous goods shall be operated.

**6. RESPONSIBILITY OF THE RAILWAY COMPANY**

- 6.1 Where a line of track is not in compliance with the requirements of these Rules, the railway company shall immediately:
  - a) bring the line of track into compliance; or
  - b) halt operations over that line of track.

- 6.2 Notwithstanding subsection 6.1, in the case of Class 1 track that is not in compliance with these Rules, the railway company may operate on that line of track under the authority of a track supervisor for not more than 30 days.
- 6.3 If a railway company designates a segment of track as "excepted track" under section 5, operations may continue over that track without complying with the provisions of Subparts B, C, D and E.

## **7. RESTORATION OR RENEWAL OF TRACK UNDER TRAFFIC CONDITIONS**

- 7.1 If during a period of restoration or renewal, track is under traffic conditions and does not meet all of the requirements prescribed in this part, the work on the track must be under the continuous supervision of a person designated under section 9. The term "continuous supervision" as used in this section means the physical presence of that person at a job site. However, since the work may be performed over a large area, it is not necessary that each phase of the work be done under the visual supervision of that person.

## **8. MEASURING TRACK NOT UNDER LOAD**

- 8.1 When unloaded track is measured to determine compliance with requirements of this part, the amount of rail movement, if any, that occurs while the track is loaded must be added to the measurements of the unloaded track.

## **9. TRACK SUPERVISORS**

- 9.1 Each railway company shall qualify persons to supervise restorations and renewals of track under traffic conditions. Such supervisors shall also be qualified to inspect track for defects.

## **10. TRACK INSPECTORS**

- 10.1 Each railway company shall qualify persons to inspect track for defects.

## **11. LICENCES**

- 11.1 Every railway company shall issue to each track inspector and track supervisor who is employed by the company a wallet-size licence indicating the name and occupational category of the licence holder.

**12. CERTIFICATION**

- 12.1 No railway company shall allow an employee of the company to perform the duties of a track inspector or track supervisor unless the employee has, to the satisfaction of the company, met the criteria established by the company.
- 12.2 A railway company shall maintain a record of all employees who have been certified.

**13. TRACK INSPECTION**

- 13.1 A track inspector or track supervisor shall undertake track inspection at such frequency and by such a method as to ensure that a line of track is safe for operation of a train at the authorized speed.

**PART II - TRACK SAFETY RULES**

**A. CLASSES OF TRACK: Operating Speed Limits**

The following maximum allowable operating speeds apply:  
(in miles per hour)

Over track that meets all of the requirements prescribed in this part for-	The maximum allowable operating speed for freight trains is -	The maximum allowable operating speed for passenger trains is -
Class 1 track	10	15
Class 2 track	25	30
Class 3 track	40	60
Class 4 track	60	80
Class 5 track	80	95*
Class 6 track	110	110

\* For LRC Trains, 100

**B. ROADBED**

**I. Drainage**

Each drainage or other water carrying facility under or immediately adjacent to the roadbed must be maintained and kept free of obstruction, to accommodate expected water flow for the area concerned.

**II. Vegetation**

Vegetation on railway property which is on or immediately adjacent to roadbed must be controlled so that it does not:

- a) become a fire hazard to track-carrying structures;
- b) obstruct visibility of railway signs and signals;
- c) interfere with railway employees performing normal track side duties;
- d) prevent proper functioning of signal and communication lines; or

- e) prevent railway employees from visually inspecting moving equipment from their normal duty stations.

**TRACK GEOMETRY**

**I. Scope**

This subpart prescribes requirements for the gauge, alignment, and surface of track, and the elevation of outer rails and speed limitations for curved track.

**II. Gauge**

- a) Gauge is measured between the heads of the rails at right angles to the rails in a plane five-eighths of an inch below the top of the rail head.

(2) Gauge must be within the limits prescribed in the following table:

<b>Class of track</b>	<b>The gauge must be at least -</b>	<b>But not more than -</b>
1	4'8" (1/2" N)	4'10" (1 1/2" W)
2 and 3	4'8" (1/2" N)	4'9 3/4" (1 1/4" W)
4 and 5	4'8" (1/2" N)	4'9 1/2" (1" W)
6	4'8" (1/2" N)	4'9 1/4" (3/4" W)

NOTE: When gauge is less than the minimum shown in the table above, speed must be reduced to the maximum speed applying to the next less restrictive track class. If the change in gauge over 20 feet on either side of the defective location exceeds 7/8", then speeds must be further reduced, according to the following table:

<b>Change in gauge over 20 ft. either side of site of narrow gauge</b>	<b>Maximum permissible speed in MPH</b>	
	<b>Freight</b>	<b>Passenger</b>
More than 1 1/2"	10	15
More than 1 1/8"	25	30
More than 7/8"	40	60

### III. Alignment

Alignment may not deviate from uniformity more than the amount prescribed in the following table:

<b>Class of Track</b>	<b>Tangent track - The deviation of the mid-offset from 62-foot line<sup>1</sup> may not be more than -</b>	<b>Curved track - The deviation of the mid-offset from 62-foot chord<sup>2</sup> may not be more than -</b>
1	5 in	5 in
2	3 in	3 in
3	1 3/4 in	1 3/4 in
4	1 1/2 in	1 1/2 in
5	3/4 in	5/8 in
6	1/2 in	3/8 in

<sup>1</sup> The ends of the line must be at points on the gauge side of the line rail, five-eighths of an inch below the top of the rail head. Either rail may be used as the line rail, however, the same rail must be used for the full length of that tangential segment of track.

<sup>2</sup> The ends of the chord must be at points on the gauge side of the outer rail, five-eighths of an inch below the top of the rail head.

### IV. Curves: Elevation and Speed Limitations

- a) Except as provided in VI the outside rail of a curve may not be lower than the inside rail or have more than 6 inches of elevation.
- b) The maximum allowable operating speed for each curve is determined by the following formula:

$$* V_{\max} = [(Ea + 3) / 0.0007d]^{1/2}$$

where:

$V_{\max}$  = Maximum allowable operating speed (miles per hour)

$Ea$  = Actual elevation of the outside rail (inches)

$d$  = Degree of curvature (degrees)

\* Does not apply to certain passenger equipment

**V. Elevation of Curved Track: Runoff**

- a) If a curve is elevated, the full elevation must be provided throughout the curve, unless physical conditions do not permit. If elevation runoff occurs in a curve, the actual minimum elevation must be used in computing the maximum allowable operating speed for that curve under IV (b).
- b) Elevation runoff must be at a uniform rate, within the limits of track surface deviation prescribed in VI, and it must extend at least the full length of the spirals. If physical conditions do not permit a spiral long enough, to accommodate the minimum length of runoff, part of the runoff may be on tangent track.

**VI. Track Surface**

Each owner of the track to which this part applies shall maintain the surface of its track within the limits prescribed in the following table:

Track Surface	Class of Track					
	1	2	3	4	5	6
The runoff in any 31 feet of rail at the end of a raise may not be more than -	3½ in	3 in	2 in	1½ in	1 in	½ in
The deviation from uniform profile on rail at the mid-ordinate of a 62-foot chord may not be more than -	3 in	2¾ in	2¼ in	2 in	1¼ in	½ in
Deviation from designated elevation on spirals may not be more than -	1¾ in	1½ in	1¼ in	1 in	¾ in	½ in
Variation in cross level on spirals in any 31 feet may not be more than -	2 in	1¾ in	1¾ in	1 in	¾ in	½ in
Deviation from zero cross level at any point on tangent or from designated elevation on curves between spirals may not be more than -	3 in	2 in	1¾ in	1¼ in	1 in	½ in
The difference in cross level between any two points less than 62 feet apart on tangents and curves between spirals may not be more than -	3 in	2 in	1¾ in	1¼ in	1 in	⅝ in

**VII. Interpolation of Speeds between Track Classes**

In the event that a track geometry-related defect is detected during a track geometry car inspection, the railways may, for a period of seventy-two (72) hours after the inspection, use

linear interpolation to determine the speed of the temporary slow order initiated to protect the defect.

Records of slow orders imposed or reason for not imposing one must be maintained.

Upon the expiration of the seventy-two (72) hour period, if the track defect has not been repaired, the slow order speed(s) must be revised to those of the next lower track Class.

## **D. TRACK STRUCTURE**

**Scope:** This subpart prescribes minimum requirements for ballast, crosstie, track assembly fittings, and the physical condition of rails.

### **I. Ballast: General**

Unless it is otherwise structurally supported, all track must be supported by material which will:

- a) transmit and distribute the load of the track and railroad rolling equipment to the subgrade;
- b) restrain the track laterally, longitudinally, and vertically under dynamic loads imposed by railway rolling equipment and thermal stress exerted by the rails;
- c) provide adequate drainage for the track; and
- d) maintain proper track cross-level, surface, and alignment.

### **II. Crossties**

- a) Crossties shall be made of a material to which rail can be securely fastened.
- b) Each 39 foot segment of track shall have:
  - 1) a sufficient number of crossties which in combination provide effective support that will:
    - i) hold gauge within the limits prescribed in C. II (b);
    - ii) maintain surface within the limits prescribed in C. VI; and
    - iii) maintain alignment within the limits prescribed in C. III.
  - 2) the minimum number and type of crossties specified in paragraph (c) of this section effectively distributed to support the entire segment; and

- 3) at least one crosstie of the type specified in paragraph (c) of this section that is located at a joint location as specified in paragraph (d) of this section.

c) Each 39 foot segment of:

Class 1 track shall have five crossties

Class 2 track shall have eight crossties

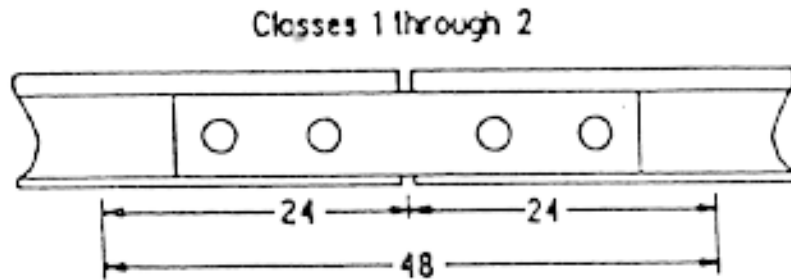
Class 3 track shall have 10 crossties

Classes 4 and 5 track shall have 12 crossties

Class 6 track shall have 14 crossties, which are not:

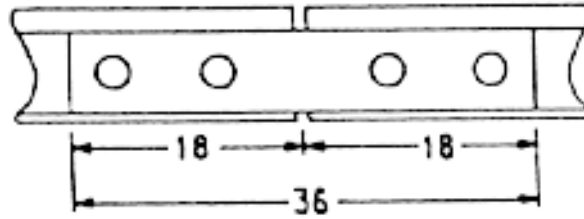
- 1) broken through;
- 2) split or otherwise impaired to the extent the crossties will allow the ballast to work through, or will not hold spikes or rail fasteners;
- 3) so deteriorated that the tie plate or base of rail can move laterally more than 1/2 inch relative to the crossties; or
- 4) cut by the tie plate through more than 40 percent of a tie's thickness.

- d) Class 1 and Class 2 track shall have one crosstie whose centerline is within 24 inches of the rail joint location, and Classes 3 through 6 track shall have one crosstie whose centerline is within 18 inches of the rail joint location. The relative position of these ties is described in the following diagram:



Each rail joint in Classes 1 and 2 track shall be supported by at least one crosstie in paragraph (c) of this section whose centerline is within the 48" shown above.

Classes 3 through 6



Each rail joint in Classes 3 through 6 track shall be supported by at least one crosstie specified in paragraph (c) of this section whose centerline is within the 36" shown above.

**III. Defective Rails**

- a) When a rail in track contains any of the defects listed in the following table, operation over the defective rail is not permitted until:
  - i) the rail is replaced; or
  - ii) the remedial action prescribed in the table is initiated:

**REMEDIAL ACTION**

Defect	Length of Defect (inch)		Percent of Rail Head Cross-Sectional Area Weakened by Defect		If Defective Rail is not Replaced, Take this Remedial Action Prescribed in Note
	More than	But not more than	Less than	But not less than	
Transverse fissure			20 100	20 100	B B A
Compound fissure			20 100	20 100	B B A
Detail fracture Engine burn fracture Defective weld			20 100	20 100	C D A or E and H
Horizontal Split Head Vertical Split Head	0 2 4 ( <sup>1</sup> )	2 4 ( <sup>1</sup> )			H and F I and G B A
Split web Piped rail Head web separation	0 1/2 3 ( <sup>1</sup> )	1/2 3 ( <sup>1</sup> )			H and F I and G B A
Bolt hole crack	0 1/2	1/2 1 1/2			H and F G

Defect	Length of Defect (inch)		Percent of Rail Head Cross-Sectional Area Weakened by Defect		If Defective Rail is not Replaced, Take this Remedial Action Prescribed in Note
		( <sup>1</sup> )			
	1 1/2 ( <sup>1</sup> )	( <sup>1</sup> )			B A
Broken base	0	6			E A or E and I
Ordinary break					A or E
Damaged rail					C

(<sup>1</sup>) Break out in rail head.

Notes:

- A. Assigned person to visually supervise each operation over defective rail.
- B. Limit operating speed over defective rail to that as authorized by the Track Supervisor or other supervisory personnel.
- C. Apply joint bars bolted only through the outermost holes to defect within 20 days after it is determined to continue the track in use. In the case of Classes 3 through 6 track, limit operating speed over the defective rail to 30 mph until angle bars are applied; thereafter limit speed to 60 mph or the maximum allowable speed under Subpart A Classes of Track: Operating Speed Limits for the class of track concerned, whichever is lower.
- D. Apply joint bars bolted only through the outermost holes to defect within 10 days after it is determined to continue the track in use. In the case of Classes 3 through 6 track, limit operating speed over the defective rail to 30 mph or less as authorized by a Track Supervisor or other supervisory personnel until angle bars are applied; thereafter limit speed to 60 mph or the maximum allowable speed under Subpart A Classes of Track: Operating Speed Limits for the class of track concerned, whichever is lower.
- E. Apply joint bars to defect and bolt in accordance with V (d) and (e).
- F. Inspect rail 90 days after it is determined to continue the track in use.
- G. Inspect rail 30 days after it is determined to continue the track in use.
- H. Limit operating speed over defective rail to 60 mph or the maximum allowable speed under Subpart A, Classes of Track: Operating Speed Limits for the class of track concerned, whichever is lower.

- I. Limit operating speed over defective rail to 30 mph or the maximum allowable speed under Subpart A, Class of Track: Operating Speed Limits, for the class of track concerned, whichever is lower.
- b) As used in this section:
- 1) "Transverse Fissure" means a progressive crosswise fracture starting from a crystalline centre or nucleus inside the head from which it spreads outward as a smooth, bright, or dark, round or oval surface substantially at a right angle to the length of the rail. The distinguishing features of a transverse fissure from other types of fractures or defects are the crystalline centre or nucleus and the nearly smooth surface of the development which surrounds it.
  - 2) "Compound Fissure" means a progressive fracture originating in a horizontal split head which turns up or down in the head of the rail as a smooth, bright, or dark surface progressing until substantially at a right angle to the length of the rail. Compound fissures require examination of both faces of the fracture to locate the horizontal split head from which they originate.
  - 3) "Horizontal Split Head" means a horizontal progressive defect originating inside of the rail head, usually one quarter inch or more below the running surface and progressing horizontally in all directions, and generally accompanied by a flat spot on the running surface. The defect appears as a crack lengthwise of the rail when it reaches the side of the rail head.
  - 4) "Vertical Split Head" means a vertical split through or near the middle of the head, and extending into or through it. A crack or rust streak may show under the head close to the web or pieces may be split off the side of the head.
  - 5) "Split Web" means a lengthwise crack along the side of the web and extending into or through it.
  - 6) "Piped Rail" means a vertical split in a rail, usually in the web, due to failure of the shrinkage cavity in the ingot to unite in rolling.
  - 7) "Broken Base" means any break in the base of a rail.
  - 8) "Detail Fracture" means a progressive fracture originating at or near the surface of the rail head. These fractures should not be confused with transverse fissures, compound fissures, or other defects which have internal origins. Detail fractures may arise from shelly spots, head checks, or flaking.

- 9) "Engine Burn Fracture" means a progressive fracture originating in spots where driving wheels have slipped on top of the rail head. In developing downward they frequently resemble the compound or even transverse fissures with which they should not be confused or classified.
- 10) "Ordinary Break" means a partial or complete break in which there is no sign of a fissure, and in which none of the other defects described in this paragraph are found.
- 11) "Damaged Rail" means any rail broken or injured by wrecks, broken, flat, or unbalanced wheels, slipping, or similar causes.

#### IV. Rail End Mismatch

Any mismatch of rails at joints may not be more than that prescribed by the following table:

Class of Track	On the top of the rail ends (inch)	On the gauge side of the rail ends (inch)
1	$\frac{1}{4}$	$\frac{1}{4}$
2	$\frac{1}{4}$	$\frac{3}{16}$
3	$\frac{3}{16}$	$\frac{3}{16}$
4, 5	$\frac{1}{8}$	$\frac{1}{8}$
6	$\frac{1}{8}$	$\frac{1}{8}$

#### V. Rail Joints

- a) Each rail joint, insulated joint, and compromise joint must be of the proper design and dimensions for the rail on which it is applied.
- b) If a joint bar on Classes 3 through 6 track is cracked, broken, or because of wear allows vertical movement of either rail when all bolts are tight, it must be replaced.
- c) If a joint bar is cracked or broken between the middle two bolt holes it must be replaced.
- d) In the case of conventional jointed track, each rail must be bolted with at least two bolts at each joint in Classes 2 through 6 track, and with at least one bolt in Class 1 track.

- e) In the case of continuous welded rail track, each rail must be bolted with at least two bolts at each joint.
- f) Each joint bar must be held in position by track bolts tightened to allow the joint bar to firmly support the abutting rail ends and to allow longitudinal movement of the rail in the joint to accommodate expansion and contraction due to temperature variations. When out-of-face, no-slip, joint-to-rail contact exists by design, the requirements of this paragraph do not apply. Those locations are considered to be continuous welded rail track and must meet all the requirements for continuous welded rail track prescribed in this part.
- g) No rail or angle bar having a torch cut or burned bolt hole may be used.

#### **VI. Tie Plates**

In Classes 3 through 6 track where timber crossties are in use there must be tie plates under the running rails on at least eight of any 10 consecutive ties.

#### **VII. Rail Anchoring**

A sufficient number of anchoring devices will be applied to provide adequate longitudinal restraint.

#### **VIII. Rail Fastenings**

Each 39 foot segment of rail shall have a sufficient number of fastenings to effectively maintain gauge within the limits prescribed in C. II.

#### **IX. Continuous Welded Rail (CWR)**

Each railway company shall have comprehensive written instructions on proper installation and maintenance of CWR. These instructions shall be made available upon request to Transport Canada.

#### **X. Rail Wear**

Each railway company shall have written requirements establishing maximum rail wear limits. These requirements shall be made available upon request to Transport Canada.

#### **XI. Turnouts and Track Crossings Generally**

- a) In turnouts and track crossings, the fastenings must be intact and maintained so as to keep the components securely in place. Also, each switch, frog, and guard rail must be kept free of obstructions that may interfere with the passage of wheels.

- b) Classes 4 through 6 track must be equipped with rail anchors through and on each side of track crossings and turnouts, to restrain rail movements affecting the position of switch points and frogs.
- c) Each flange way at turnouts and track crossings must be at least 1 1/2 inches wide.

## **XII. Switches**

- a) Each stock rail must be securely seated in switch plates, but care must be used to avoid canting the rail by over tightening the rail braces.
- b) Each switch point must fit its stock rail properly, with the switch stand in either of its closed positions to allow wheels to pass the switch point. Lateral and vertical movement of a stock rail in the switch plates or of a switch plate on a tie must not adversely affect the fit of the switch point to the stock rail.
- c) Each switch must be maintained so that the outer edge of the wheel tread cannot contact the gauge side of the stock rail.
- d) The heel of each switch rail must be secure and the bolts in each heel must be kept tight.
- e) Each switch stand and connecting rod must be securely fastened and operable without excessive lost motion.
- f) Each throw lever must be maintained so that it cannot be operated with the lock or keeper in place.
- g) Each switch position indicator must be clearly visible at all times.
- h) Unusually chipped or worn switch points must be repaired or replaced. Metal flow must be removed to insure proper closure.

## **XIII. Frogs**

- a) The flange way depth measured from a plane across the wheel-bearing area of a frog on Class 1 track may not be less than 1 3/8 inches, or less than 1 1/2 inches on Classes 2 through 6 track.
- b) If a frog point is chipped, broken, or worn more than five-eighths inch down and 6 inches back, operating speed over the frog may not be more than 10 miles per hour.

- c) If the tread portion of a frog casting is worn down more than three-eighths inch below the original contour, operating speed over that frog may not be more than 10 miles per hour.

#### **XIV. Spring Rail Frogs**

- a) The outer edge of a wheel tread may not contact the gauge side of a spring wing rail.
- b) The toe of each wing rail must be solidly tamped and fully and tightly bolted.
- c) Each frog with a bolt hole defect or head-web separation must be replaced.
- d) Each spring must have a tension sufficient to hold the wing rail against the point rail.
- e) The clearance between the hold-down housing and the horn may not be more than one-fourth of an inch.

#### **XV. Self-Guarded Frogs**

- a) The raised guard on a self-guarded frog may not be worn more than three-eighths of an inch.
- b) If repairs are made to a self-guarded frog without removing it from service, the guarding face must be restored before rebuilding the point.

#### **XVI. Frog Guard Rails**

The guard check in frogs must be within the limits prescribed in the following table:

<b>Class of Track</b>	<b>Guard check gauge - The distance between the gauge line of a frog to the guard line<sup>1</sup> of its guard rail or guarding face, measured across the track at right angles to the gauge line,<sup>2</sup> may not be less than -</b>
1	4 ft 6 $\frac{1}{8}$ in
2	4 ft 6 $\frac{1}{4}$ in
3, 4	4 ft 6 $\frac{3}{8}$ in
5, 6	4 ft 6 $\frac{1}{2}$ in <sup>3</sup>

<sup>1</sup> Line along that side of the flange way which is nearer to the centre of the track and at the same elevation as the gauge line.

<sup>2</sup> Line 5/8 inch below the top of the centerline of the head of the running rail, or corresponding location of the tread portion of the track structure.

<sup>3</sup> At points of heavy point frogs equipped with through gauge plates, 4' 6 3/8".

## **E. TRACK APPLIANCES AND TRACK-RELATED DEVICES**

### **I. Scope**

This Subpart prescribes minimum requirements for certain track appliances and track-related devices.

### **II. Derails**

Each derail must be clearly visible. When in a locked position a derail must be free of any lost motion which would allow it to be operated without removing the lock.

Derails must be installed when there is any possibility of equipment that has been left standing on tracks other than main tracks or sidings being moved by gravity so as to obstruct a main track or siding.

## **F. INSPECTION**

### **I. Scope**

This Subpart prescribes requirements for the frequency and manner of inspecting track to detect deviations from the standards prescribed in this part.

### **II. Track Inspections**

- a) All track must be inspected in accordance with the schedule prescribed in paragraph (c) of this section.
- b) Each inspection must be made on foot or by riding over the track in a vehicle at a speed that allows the person making the inspection to visually inspect the track structure for compliance with this part. However, mechanical, electrical and other track inspection devices may be used to supplement visual inspection. If a vehicle is used for visual inspection, the speed of the vehicle may not be more than 5 miles per hour when passing over track crossings, highway crossings, or switches.

When riding over the track in a vehicle, the inspector(s) may inspect up to two tracks at one time provided that:

- (1) Each main track is actually traversed by the vehicle or inspected on foot on alternate inspections at least once every two weeks, and each siding is actually traversed by the vehicle or inspected on foot at least once every month.
- (2) One inspector cannot inspect more than two tracks at one time and cannot inspect any track centered more than 30 feet from the track on which the inspector is riding.
- (3) Track inspection records must indicate all track(s) included in the inspection and indicate which track(s) was traversed by the vehicle or inspected on foot.
- (4) The inspectors' view of the tracks is unobstructed by tunnels, bridges, differences in ground level, or any other circumstances or conditions that would interfere with a clear view of all the tracks they are inspecting.

3) Each track inspection must be made in accordance with the following schedules:

<b>Class of Track</b>	<b>Type Track</b>	<b>Required Frequency With Geometry Car Inspection*</b>	<b>Required Frequency Without Geometry Car Inspection</b>
1 ,2, 3,	Main Track	Weekly with at least 3 calendar days interval between inspections, or before use if the track is used less than once a week, or  Twice weekly with at least 2 calendar days interval between inspections, if the track carries passenger trains or more than 3 million gross tons of traffic during the preceding 12 months.	As required with a maximum interval of 3 calendar days between inspections and train operations, or  As required with a maximum interval of 2 calendar days between inspection and train operation if the track carries passenger trains or more than 3 million gross tons of traffic during the preceding 12 months.
4, 5, 6	Main Track	Twice weekly with at least 2 calendar days interval between inspections.	Thrice weekly with at least 1 calendar day interval between inspections.
	Sidings	To be inspected from the adjacent main track during main track inspections as stipulated above.  Once a month, with at least 20 days between inspections, each siding must be actually traversed by the inspection vehicle, or else inspected on foot.	To be inspected from the adjacent main track during main track inspections as stipulated above.  Once a month, with at least 20 days between inspections, each siding must be actually traversed by the inspection vehicle, or else inspected on foot.
	Other than Main Track & Sidings	N/A	Monthly with at least 20 calendar days interval between inspections, or before use if the track is used less than once a month.

\* Geometry car Inspections to be conducted at the following minimum frequency, otherwise treated as without geometry car inspection: twice per year on class 4,5, 6 track; twice per year on class 1,2,3 track that carried more than 25 million gross tons of traffic during the preceding year, otherwise once per year.

d) If the person making the inspection finds a deviation from the requirements of this part, he shall immediately initiate remedial action.

### **III. Switch and Track Crossing Inspections**

- a) Except as provided in paragraph (b) of this section, each switch and track crossing must be inspected on foot at least monthly.
- b) In the case of track that is used less than once a month, each switch and track crossing must be inspected on foot before it is used.

### **IV. Inspection of Rail**

- a) In addition to the track inspections required by F. II., at least once a year a continuous search for internal defects must be made of all jointed and welded rails in Classes 4 through 6 track, in tracks where the annual gross tonnage is 25 million or more, and in Class 3 track over which passenger trains operate. However, in the case of a new rail, if before installation or within 6 months thereafter, it is inductively or ultrasonically inspected over its entire length and all defects are removed, the next continuous search for internal defects need not be made until three years after that inspection.
- b) Inspection equipment must be capable of detecting defects between joint bars, in the area enclosed by joint bars.
- c) Each defective rail must be marked with a highly visible marking on both sides of the web and base.

### **V. Special Inspections**

In the event of fire, flood, severe storm, or other occurrence which might have damaged track structure, a special inspection must be made of the track involved as soon as possible after the occurrence.

### **VI. Inspection Records**

- a) Each owner of track to which this part applies shall keep a record of each inspection required to be performed on that track under this Subpart.
- b) Each record of an inspection under F. II. & III. shall be prepared on the day the inspection is made and signed by the person making the inspection. Records must specify the track inspected, date of inspection, location and nature of any deviation from the requirements of this part, and the remedial action taken by the person making the inspection. The owner shall retain each record at its district headquarters for at least one year after the inspection covered by the record.

- c) Rail inspection records must specify the date of inspection, the location, and nature of any internal rail defects found, and the remedial action taken and the date thereof. The owner shall retain a rail inspection record for at least two years after the inspection and for one year after remedial action is taken.
  
- d) All records (track geometry car, rail testing car, inspection logbooks...) shall be made available upon request to Transport Canada Railway Safety Inspectors.