

INDEX

A	Page
Access tracks	1-3, 3-21
Adjustable crank (switch stand)	2-6, 3-35
Adzing ties	3-4
Anchors, rail	2-5, 3-25, 3-32, 3-33
Angle bars	2-2, 3-21, 3-24, 3-26, 3-28, 3-29, 3-30
Antisplitting iron	3-8
B	
Ballast	
Application	3-1
Cleaning	3-1, 3-2
Crib	3-2
Distribution	3-2, 3-5
Purpose	3-1
Reconditioning	3-1
Replacement stock	2-1
Road and street crossings	4-10
Sizes	3-1
Specifications	3-1
Sub-	4-13, 4-40
Tamping	3-2, 3-6, 3-7, 3-31, 4-4, 4-5,
Trimming	3-2
Types	3-1
Bars	
Compromise	2-1, 3-21, 3-22
Joint	2-1, 3-21, 3-24, 3-26, 3-28, 3-29, 3-30
Bender, rail	3-24
Berm	3-2
Bolting joints	3-26, 3-31
Bolts	2-4, 3-26, 3-31, 3-32
Bond, plug	3-29
Bond, rail	3-28
Bond, wire	3-29
Breakable crank (switch stand)	2-6, 3-35, 3-39
Bridge, ballast decked	5-2
Bridge ties	2-7, 3-13, 5-1
Bridges	5-1
Approaches	5-3
Clearances	6-2, 6-3
Guardrails	5-1
Maintenance of track	5-1
Broken base	3-21, 3-22

Canted rail	3-32
Cattle guard	3-2
Charts, track	E-1, E-2
Check	7-3
Classification yard	1-3, 2-1
Cleaning, ballast	3-1, 3-2, 4-23
Clearances	6-1, 6-2, 6-3
Compound curve	4-1
Compound fissure	3-19, 3-20
Compromise joint	2-2, 3-19, 3-22
Crank, adjustable (switch stand)	2-6, 3-37, 3-54
Crank, breakable (switch stand)	2-6, 3-54
Creeping, rail	3-31, 3-33
Creosoting	3-4, 3-8
Crib	3-2
Crossing, highway	
Approach level	4-11
Bituminous	4-11, 4-12, 4-13
Concrete	4-11, 4-12, 4-13, 4-14, 4-15
Maintenance	4-14
Paved areas, in	4-14
Plank	4-16, 4-24
Precast	4-14, 4-15
Protection	4-19
Rubber	4-14
Signs and signals	4-19, 4-20, 4-21
Crossing, track	6-5
Crossovers	3-34
Crossties	2-2, 3-12, 3-3
Culverts	
Track approaches	5-1, 5-3
Track over	5-1, 5-3
Curves	
Compound	4-1, D-1
String-lining	4-1, Appendix F
Superelevation	4-1, D-1
Vertical	D-1
Cuts and fills	3-2, 3-3

Data, engineering	Appendix D
Definitions	1-3, Appendix C
Defect, transverse	3-19, 3-20
Derails	3-39
Drainage	4-22
Roadbed	4-22
Side and cross	4-22
Yard and tracks	4-28
Drainpipes	4-27
Drill, track	2-11, 3-25, 3-26
Drilling, joint bar	3-19, 3-25

	Page
E	
Easement, curve	4-1
Embankments	4-23, 4-27, 4-28, 4-33
Emergencies	2-1, 3-19, 3-29, 7-4
Equipment, see tools	
Erosion	4-23, 4-24
Expansion, rail	4-4, D-2, D-7

F

Fastenings, track	2-1, 3-24
Fences, snow	4-28
Fills	3-2, 3-3
Fires	
Prevention, general	2-2
Fissure, compound	3-19, 3-20
Fissure, transverse	3-19, 3-20
Flagging	3-24
Flagmen	3-23
Flangeway	3-17
Flangeway guard	4-12, 4-13, 4-14, 4-16
Frogs	2-1, D-1

G

Gage rod	3-26, 3-32
Gage tool	4-6
Gaging (of track)	4-5, 4-6, 4-7
Gap, joint	D-2, D-7
Girder rail	3-17, 3-18, 4-18
Grade	3-24
Grade line	3-24
Gradient	3-24, D-2
Grouting	4-26, 4-27
Guardrail, bridge	5-1
Guardrail, inner	2-4
Guardrail, turnout	3-37, 3-40, 4-7, 4-8

H

Heaving	4-8, 4-10, 4-27
---------------	-----------------

I

Ice removal	4-28
Inactive trackage	1-3
Inspecting	6-5, 7-1, 7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 7-8
Bridges	5-1
Drainage	4-22, 4-23, 7-1
Rail	3-17, 3-18, 3-19, 7-1
Ties	3-13, 3-14, 7-1, Appendix G

J

Jacking track	4-4, 4-5
Joint bar	2-2, 3-21, 3-24, 3-26, 3-28, 3-29, 3-30
Joint bar drilling	2-2, 2-3
Joint, compromise	2-1, 3-19, 3-22
Joint gap	D-7
Joists	
Bonded	3-28
Expansion	3-28
Rail	3-28

L

Ladder tracks	3-36, 6-5
Lead track	4-7
Line	4-1
Lock washers	3-31
Lubrication	5-1
Joint bars	3-25
Track bolts	3-30

M

Maintenance standards	2-9, 4-9, 6-5, Appendix B
Materials	
Emergency and replacement stock	2-1
Requisition	2-1, 2-10
Storage	2-1, 2-10, 3-17, 4-10
Members, see bridge	
Mudjacking equipment	4-27

O

Overhead structures	6-2, 6-5
---------------------------	----------

P

Personnel	1-3, 3-8
Piles	4-27
Pipes, drain	4-25, 4-26
Plank crossings	4-14
Plates, tie	2-1, 2-5, 3-16, 3-24, 3-28
Plug, bond	3-28
Preservatives	3-4, 3-8
Protective measures	2-2, 3-32, 6-1
Puller, spike	4-7, 4-8

R

Rails	
Anchor	2-5, 3-25, 3-31, 3-33
Bender	3-24
Bond	3-28
Brace	D-6

	Page
Creeping	3-31, 3-33
Cutting	3-19, 3-29
Distribution	3-24
Failures	3-19, 3-20
Angular break	3-19, 3-20, 3-21, 3-22
Broken base	3-19, 3-20
Compound fissure	3-19, 3-20
Crushed head	3-19, 3-20
Damaged rail	3-19, 3-31
Horizontal split	3-19, 3-20
Piped rail	3-19, 3-20
Requiring stoppage of traffic	3-19
Split web	3-19, 3-20
Square break	3-19, 3-20, 3-21
Transverse fissure	3-19, 3-20
Vertical split	3-19
Fastenings	2-1, 3-24
Girder	3-17, 3-18, 4-18
Handling	2-2, 3-23, 3-24, 3-25
Inspection	3-17, 3-18, 3-19, 7-1
Joint bar	2-1, 3-19, 3-20, 3-29, 3-30, 3-31
Joint baseplate	D-6
Joints	2-1, 3-19, 3-28, 3-29, 3-30, 4-10
Low	3-19
Replacement	2-1, 2-2, 3-17, 3-19, 3-22, 3-24, 3-26
Saw	3-19, 3-24
Sections	3-17, 3-19
Spikes	2-5, 3-16, 3-25, 3-27, 3-28, 3-30, D-10
Spiking	3-25, 3-27
Storage	2-2
Temperature	3-35, 4-3, D-7
Raising track	4-4
Responsibility	1-2, 1-3, 6-5, 7-1
Retaining wall	4-27, 6-1
Reverse curve	4-1, D-1
Road and street crossing	4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16 4-17, 4-18, 4-19, 4-20, 4-21
Roadbed	3-4
Drainage	4-22, 4-23
Soils	4-22, 4-23, 4-24, 4-25, 4-26
Subgrade	3-1, 4-23
Roadway cleanup	3-4, 3-16, 4-22
Rod, front	D-6
Rod, gage	3-15
Rod, head	D-6
Rod, switch-operating	3-35, D-6
Rod, throw	D-6
Running rail	2-4
Running surface	4-5
 Safety	 1-4, 6-1, 6-2, 6-3, 6-5, 7-2
Caring for tools in storage	2-9
Cutting rails	3-29

S

Safety	1-4, 6-1, 6-2, 6-3, 6-5, 7-2
Caring for tools in storage	2-9
Cutting rails	3-29

	Page
Fire	2-2
Handling damaged rails	3-19
Personnel	3-11, 3-12, 3-25, 6-5
Slow orders	3-19, 3-23
Traffic	3-19, 6-5
Seasonal work	
Roadway cleanup	4-22, 4-23, 4-24, 4-28
Snow and ice removal	4-22, 4-28
Weed control	4-22, 4-28
Servicing railraod	3-17
Shim, expansion	4-4, D-2, D-7
Shim, track	4-8, 4-9
Side clearance	6-1, 6-2, 6-3
Siding	1-5
Signal, wigwag	4-19
Signals	3-28, 4-19, 6-6
Simple curve	4-1
Slides	4-27
Slow orders	3-19, 3-23
Snow and ice removal	4-22, 4-28
Spacing ties	3-15
Specifications	1-3, 2-1, 3-1, 4-8, 4-9, 6-3, 6-4
Spikes	
Removal	3-16, 4-6
Replacement and storage	2-1, 2-5, 4-7
Used in maintenance of tracks	2-5, 3-27, 3-28, 3-30, 4-6, 4-9
Splice bars	2-1, 2-3, 3-24, 3-25, 3-28, 3-29,
Split head	3-19, 3-20
Split web	3-19, 3-20
Spot board	2-11
Spread, heel	D-6
Stacking	
Materials	2-2, 2-7, 2-8, 3-24
Rails	2-7, 3-24
Ties	2-8, 3-12
Standard gage	4-7
Standards of maintenance	1-2, 1-4, 2-10
Stocks of materials	2-1, 2-2
Structures, warning	6-6, 6-8
Surfacing	
Before rail renewal	4-1, 4-2, 4-3, 4-4
Out-of-face	3-19, 4-1, 4-3, 4-9
Switch	
Angle	3-35, D-6
Heel of	2-3, 3-35, D-6
Heel separation	2-3, D-6
Point derail	2-3, 3-39
Point lug	D-6
Rod	2-6, 3-37, D-6
Split	3-37, 3-38, D-6
Stand	2-6, 3-37
Stand latch	2-6
Target	3-37
Throw off	3-35, 3-36
Ties	2-7, 2-13, 3-13, Appendix G

	Page
T	
Tamper, air	3-6, 4-4
Tamper, electric	3-7, 4-4
Tamper, hand	3-6
Tamping	3-2, 3-16, 3-25, 4-4, 4-5
Tangents	
Gage	4-1, 4-4
Lining, surfacing	4-1, 4-4
Terracing	4-27
Tie plates	2-1, 2-4, 3-16, 3-24, 4-9
Ties	2-2, 2-7, 2-8, 3-2, Appendix G
Adzing	3-4, 3-8, 3-16
Bridge	2-7, 2-8, 3-13
Cross	2-2, 2-7, 2-8, 3-2, 3-13, Appendix G
Inspection	3-13, 3-14, Appendix G
Installation	3-10, 3-11
Joint	3-16
Preservatives	3-4, 3-8, Appendix G
Removed	3-16
Renewal	3-18
Sizes	3-12, 3-13, 4-10
Spacing	3-15
Stacking	2-2, 2-8
Storage	2-2, 2-8
Tongs	2-2, 2-11, 3-8, 3-11
Tool house	2-2, 2-9
Tools and equipment	
Care and maintenance	2-9
Requisitions	2-9
Storage	2-9
Track level	2-10, 4-1, 4-4
Tracks	
Access	1-3, 3-13, 3-19
Approaches to trestles and bridges	5-3
Equipment, maintenance	2-10, 3-1, 3-5, 3-6, 3-7, 3-11, 3-12 3-18, 3-24, 3-26, 3-27, 3-32
Fastenings	3-28
Gaging	3-28, 4-5, 4-6, 4-7
Grade	4-1, 4-2, 4-3, 4-4
Heaving	4-8, 4-9
Shims used to correct	4-9, 4-10
Subgrade drainage	4-8, 4-23
Inactive	1-5
Lining	4-1, 4-2
Maintenance	
At crossings	4-10, 4-11
Over ballast-decked structures	5-1
Over bridges and trestles	5-1
Obstructions	3-24, 6-5, 7-4
Raising	3-2, 3-16, 4-3
Shimming	4-8, 4-9, 4-10
Sidings	1-5
Spiking	3-25, 3-27, 3-28, 3-30, 4-4, 4-7
Storage	1-5, 3-19

Page

Superelevation	4-4
Surfacing	3-2, 4-1, 4-2
Tamping	4-4, 4-5
Transverse fissures	3-17, 3-19
Trestles	
Inspection	5-7
Turnouts and crossovers	3-24, 3-28, 3-32, 3-34 3-35, 3-36, 4-7
Derails	3-39
Frogs	2-2, 2-4, 3-2, 3-34, 3-37
Guardrails	2-1, 2-3, 3-2, 3-37
Installation	3-37, 4-9
Location	3-35
Number	3-13, 3-32, 3-34, 3-35
Position	3-35
Replacement	3-32
Spiking	3-37
Standard	3-32, 3-34
Surface and line through	3-35
Switch	3-35, 3-38
Points	2-1, 2-3, 3-25, 3-35
Stand	2-1, 2-6, 3-35
Ties	2-1, 2-7, 3-4, 3-10 3-13, 3-15, 3-35, Appendix G
Switches	3-2, 3-35

V

Vertical curve	D-1, D-2
Vertical split head	3-19, 3-20

W

Warning structures	4-21, 6-5, 6-6
Water pockets	4-26, 4-27
Weed control	1-4, 2-2, 4-25, 4-28
Welding	3-2

Y

Yard tracks	4-28
Yards	1-3, 2-1