

*Compliance with*  
**OPERATING RULES**

AND  
**SAFETY RULES**

INSURES  
**SAFE and EFFICIENT  
Operation**

In Case of DOUBT or UNCERTAINTY  
the SAFE COURSE MUST BE TAKEN

IMPACT FORCE AT VARIOUS STRIKING SPEEDS		
CAR COUPLED AT (MPH)		IMPACT FORCE
SAFE	1	1
	2	4
	3	9
	4	16
DAMAGING	5	25
	6	36
	7	49
	8	64
	9	81
	10	100

**THE BALTIMORE AND OHIO  
RAILROAD COMPANY**  
CENTRAL REGION

**Safety Above Everything**



**CUMBERLAND DIVISION**

**TIMETABLE No. 85**

Effective 3:01 A. M., Eastern Standard Time

**SUNDAY, APRIL 30, 1967**

**DESTROY ALL TIMETABLES OF PREVIOUS DATE**

**Read The Instructions**

**FOR INFORMATION OF EMPLOYEES ONLY**

**Trains run on Eastern Standard Time**

**R. H. PRIDDY,**  
*Superintendent.*

**G. S. HARRIS,**  
*General Manager.*

## DIVISION OFFICERS

NAME AND LOCATION	TITLE
<b>CUMBERLAND:</b>	
R. H. Priddy .....	Superintendent
W. W. Frey .....	Assistant Superintendent
H. A. Snoots .....	Trainmaster
E. G. Fletcher .....	RFE
W. J. Lockwood .....	ATM
R. R. Readd .....	Divn. Opr.
J. E. Gross .....	CTD
L. O. Robinson .....	Day TTM
W. G. Finley .....	Night TTM
C. E. Kenney .....	ATM
J. H. Phillips .....	ATM (Night)
J. R. Rymer .....	Division Engineer
W. M. Williams .....	Asst. Division Engineer
<b>MARTINSBURG:</b>	
H. M. Ryan .....	ATM
<b>KEYSER:</b>	
C. B. Welch, Jr. ....	TM
B. F. Hotchkiss .....	RFE
<b>ROWLESBURG:</b>	
E. L. Hollen .....	ATM

### CHIEF TRAIN DISPATCHERS

H. V. Kesacker                  J. T. Stickley                  J. R. Smith

### TRAIN DISPATCHERS

W. V. Kaylor	F. A. Gates
S. A. McCullough	E. C. Greene
B. A. McCullough	B. P. Kenney
D. W. Courtney	W. E. Clatterbuck
C. R. Kreiger	J. H. Stickley
S.E. Butts	C. W. Roy
L. L. Ridgeway	

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**Note.**—Additional instructions, distances, passing sidings, office hours, junctions, etc., may be found on Schedule and Station pages 2 to 7.

WESTWARD

EAST END

## TIMETABLE No. 85

In Effect 3:01 a.m.,  
Sunday, April 30, 1967

		Read Down FIRST CLASS				
		11 Daily	9 Daily	5 Daily	31 Daily	7 Daily
<b>WEVERTON</b>	2.8	AM 808	PM 151	PM 520	PM 733	AM 1226
<b>Harpers Ferry</b>	18.3	S 813	S 156	F 524	S 738	F1231
<b>Martinsburg</b>	23.1	S 855	S 233	S 551	S 803	S 104
<b>Hancock</b>	25.5	S 926	S 304	.....	.....	.....
<b>Paw Paw</b>	24.2	F 958	.....	.....	.....	.....
<b>Cumberland</b>	0.6	A1032 L 1047	A 408 L 418	A 720 L 730	A 931 L 940	A 235 L 245
<b>VIADUCT JCT.</b>		..... AM	420 PM	732 PM	..... PM	247 AM

SUBDIVISION

EASTWARD

Read Up  
FIRST CLASS

10 Daily	32 Daily	6 Daily	8 Daily	12 Daily
AM 433	AM 608	AM 810	PM 436	PM 936
S 427	S 603	F 805	S 430	S 930
S 401	S 537	S 739	S 406	S 904
.....	.....	.....	.....	S 819
.....	.....	.....	.....	F 748
L 225	L 408	L 610	L 225	L 718
A 215	A 403	A 600	A 215	A 708
213	.....	558	210	.....
AM	AM	AM	PM	PM



**WEST END SUBDIVISION**

WESTWARD

EASTWARD

**TIMETABLE No. 85**

 Read Down  
FIRST CLASS

 Read Up  
FIRST CLASS

**11**  
Daily

**31**  
Daily

**32**  
Daily

**12**  
Daily

 In Effect 3:01 a.m.,  
Sunday, April 30, 1967

	AM	PM	AM	PM
<b>CUMBERLAND</b>	L 1047	L 940	A 403	A 708
<b>Keyser</b>	S1121	S1012	S 330	S 633
<b>Piedmont</b>	S1129	H1019	.....	S 623
<b>Oakland</b>	S1223	S1107	F 238	S 538
<b>Terra Alta</b>	S1243	.....	.....	S 520
<b>Rowlesburg</b>	S 107	.....	.....	S 450
<b>Tunnelton</b>	.....	F1153	.....	F 438
<b>Newburg</b>	.....	F1205	.....	F 422
<b>East Grafton</b>	150	1221	114	406
<b>GRAFTON</b>	A 200 PM	A 1228 AM	L 107 AM	L 359 PM

H Stops only to discharge revenue passengers.

**SOUTH BRANCH SUBDIVISION**

WESTWARD

EASTWARD

**TIMETABLE No. 85**

 Read Down  
THIRD CLASS

 Read Up  
THIRD CLASS

**87**

 Mon., Wed.  
and Fri.

**84**

 Mon., Wed.  
and Fri.

 In Effect 3:01 a.m.,  
Sunday, April 30, 1967

	AM	PM
<b>GREEN SPRING</b>	L 730	A 340
<b>Grace</b>	757	315
<b>Romney Jct.</b>	820	247
<b>West Romney</b>	830	240
<b>Cunningham</b>	930	152
<b>Moorefield</b>	1001	145
<b>Durgon</b>	1022	113
<b>PETERSBURG</b>	A 1045 AM	L 100 PM

WESTWARD

STATIONS, ETC.

Distance	Passing Siding Capacity in Cars (45 ft.)	EAST END SUBDIVISION	OFFICE HOURS		Office Call	Jct. or Crossing
			From	To		
0.0	.....	<b>WEVERTON</b>	.....	.....	VO	Balto Divn
2.8	.....	Harpers Ferry	C	C	HF	Shenandoah SD
6.0	.....	Engle	.....	.....	R	.....
10.1	.....	Shenandoah Jct.	.....	.....	SV	N&W
11.9	.....	Hobbs	.....	.....	RN	.....
21.1	.....	Martinsburg	C	C	NA	Frog Hollow Industrial Track
22.1	.....	C. V. Jct.	.....	.....	.....	PRR
23.4	.....	Fawver	.....	.....	RA	.....
26.4	.....	West Cumbo	C	C	W	PRR
28.7	.....	North Mountain	.....	.....	NM	.....
34.8	.....	Cherry Run	.....	.....	CX	.....
35.6	.....	Miller	C	C	R	W. M.
38.7	.....	Sleepy Creek	.....	.....	SC	.....
44.2	.....	Hancock	.....	.....	.....	.....
44.3	210	HO Tower	C	C	HO	Berkeley Springs Industrial Track
49.8	.....	Sir John's Run	.....	.....	CK	.....
53.9	.....	Great Cacapon	.....	.....	GC	.....
60.6	.....	Orleans Road	.....	.....	AD	.....
65.1	.....	Hansrote	.....	.....	HX	.....
66.8	.....	Magnolia	.....	.....	WO	.....
69.7	.....	Paw Paw	.....	.....	WA	.....
72.5	.....	Little Cacapon	.....	.....	.....	.....
73.7	.....	Okonoko	.....	.....	NO	.....
79.6	E 487	Green Spring	*730 A	430 P	GI	S. Br. SD
86.2	.....	Patterson Creek	C	C	FN	Patterson Creek SD
88.2	.....	North Branch	.....	.....	.....	W. M.
89.1	.....	Mexico	C	C	M	.....
91.3	.....	West Hump	.....	.....	.....	.....
92.8	.....	Virginia Avenue	C	C	VA	W. M.
93.9	.....	<b>CUMBERLAND</b>	C	C	WC	.....

**SOUTH BRANCH SUBDIVISION**

0.0	.....	<b>GREEN SPRING</b>	9.3	*730 A	430 P	GI
9.3	.....	Grace	6.1	.....	.....	E. End SD
15.4	.....	Romney Jct.	2.1	.....	.....	.....
17.5	10	West Romney	19.4	.....	.....	.....
36.9	.....	Cunningham	2.5	.....	.....	.....
39.4	25	Moorefield	7.4	.....	.....	.....
46.8	.....	Durgon	5.0	.....	.....	.....
51.8	.....	<b>PETERSBURG</b>	.....	.....	.....	.....

C-Continuous.

\*-Daily except Saturday and Sunday.

## WESTWARD

## STATIONS, ETC.

Distance	Passing Siding Capacity in Cars (4.5 ft.)	PATTERSON CREEK SUBDIVISION	OFFICE HOURS		Office Call	Jct. or Crossing
			From	To		
STATIONS						
0.0		PATTERSON CREEK	6.2	C	C	FN E. End SD
6.2		McKENZIE				CO W. End SD
WEST END SUBDIVISION						
0.0		CUMBERLAND	0.1	C	C	WC
0.1		Baltimore Street	0.5	C	C	BS
0.6		Viaduct Jct.		C	C	ND Pgh.Divn.- PRR-W.M. E. End SD
			8.6			
9.2		McKenzie	4.0			CO
13.2		Rawlings	10.1			RW W. M.
23.3		Keyser	1.5	C	C	KY
24.8		West Keyser	3.5	C	C	Z
28.3		Piedmont	1.2			P
29.5		W. Va. Central Jct.	0.8			W. M.
30.3		Bloomington	2.5			
32.8		Big Curve	1.5			BC
34.3		Bond	4.7	C	C	BD
39.0		Strecker	2.3			HX
41.8		Swanton	2.9			SN
44.2		Wilson	0.9			WI
45.1	E 112	Altamont	2.8	C	C	AM
47.9		Deer Park	3.4			DE
51.3		Mtn. Lake Park	2.6			PK
53.9		Oakland	5.4			OA
59.3		Hutton	0.6			HN
59.9		Corinth	2.8			CN
62.7		Rinard	1.0			RX
63.7	E 113	Terra Alta	5.0	C	C	CA
68.7		Rodemer	5.5			RO
74.2	W 138	McMillan	1.4			MC
75.6		MK Tower	0.5	C	C	MK M&K SD
76.1		Rowlesburg	4.5			R
80.6		Blaser	1.4			K
82.0		Tunnelton				KN WVa Northern RR.
			1.7			
83.7		West End	5.2	C	C	WS
88.9		Newburg	1.2			NE
90.1		Independence	1.4			
91.5		Hardman	4.6	C	C	Q
96.1		Thornton	3.1			UN
99.2		East Grafton	2.2	C	C	GN Monon- gah Divn.
101.4		GRAFTON		C	C	GR

C-Continuous.

## WESTWARD

## STATIONS, ETC.

Distance	Passing Siding Capacity in Cars (4.5 ft.)	M&K SUBDIVISION	OFFICE HOURS		Office Call	Jct. or Crossing
			From	To		
STATIONS						
0.0		M&K JCT.	0.5	C	C	MK W. End SD
0.5		Rowlesburg	11.1			
11.6	40	Caddell	2.4			
14.0		Albright	4.4			AB
18.4		Kingwood	6.5	*700 A	400 P	KI
24.9		Manown	1.8			
26.7		Kanes Creek	2.8			
29.5		Arthurdale Mine	0.6			
30.1		Reedsville	1.4			RD
31.5		Burk	1.5			
33.0	35	Bretz	0.6			
33.6	16	Oak Park	0.8			
34.4		Masontown	1.0	*700 A	400 P	MS
35.4		Cascade	2.1			
37.5		Greer	6.5			
44.0		Rock Forge	1.8			
45.8		Sabraton	2.1			SA
47.9		MORGANTOWN		#C	C	MN Pgh. Divn

C-Continuous.

\*-Daily except Saturday and Sunday.

#-Closed 7:30 A.M., Sunday to 7:30 A.M., Monday.



# SPECIAL INSTRUCTIONS

## TIMETABLE ABBREVIATIONS:

TT.....Timetable  
 SI.....Special Instructions  
 TO.....Train Orders  
 SD.....Subdivision

Any reference to "Rule/s" in Special Instructions refers to "Operating Rule/s" unless otherwise noted.

### 1.—SUPERIORITY OF TRAINS.

On single track Eastward trains are superior to Westward trains of the same class: except No. 87 is superior to No. 84 on the South Branch Subdivision.

### 1-A.—DESIGNATION AND USE OF MAIN TRACKS:

SUBDIVISION OR TRACK SECTION BETWEEN	OPERATING RULES IN EFFECT	TRACK/S
Weverton and Harpers Ferry	676	2
Harpers Ferry and West Cumbo	251-254	2
West Cumbo and Miller	251-254	3
Miller and Okonoko, including passing siding from HO Tower and Grasshopper Hollow west of HO Tower	676	2
Okonoko and Patterson Creek, Nos. 1 and 2 tracks	251-254	3
Okonoko and Patterson Creek No. 3 track	676	
Patterson Creek and William Street Cumberland	676	2
South Branch Subdivision	TTTO	1
Patterson Creek Subdivision	676	1
Baltimore St. Cumberland and Big Curve	251-254	2
Big Curve and Bond, Nos. 1 and 2 tracks	251-254	3
Big Curve and Bond, No. 3 track	676	
Bond and Terra Alta	251-254	2
Terra Alta and MK Tower, Nos. 1 and 2 tracks	251-254	3
Terra Alta and MK Tower, No. 3 track	676	
MK Tower and West End, No. 1 track	676	2
MK Tower and West End, No. 2 track	251-254	
West End and Hardman, Nos. 1 and 2 tracks	251-254	3
West End and Hardman, No. 3 track	676	
Hardman and East Grafton	251-254	2
M&K Subdivision	TTTO	1

Note.—Where Rules 251-254 are in effect, Rules 505-519, inclusive, are also in effect.

### 1-A.—Concluded.

Where three main tracks are in service they are numbered from north to south as No. 1, No. 3 and No. 2, except between West Cumbo and Miller, tracks are numbered from north to south as No. 4, No. 1 and No. 2.

Where Rules 251-254 are in effect, No. 1 track is westward and Nos. 2 and 4 tracks eastward.

### JOINT USE OF TRACKS

1-B.—Baltimore and Ohio trains and engines will use the tracks of other railroads in accordance with their timetables, rules and regulations as follows:

Shenandoah Jet.....N&W (See Note 1)

West Cumbo (depressed track).....PRR (See Note 2)

Miller and Hagerstown.....WM (See Note 3)

Note 1.—Main track of Norfolk and Western Railway, Shenandoah Jet., must not be used beyond clearance point of east end of their delivery track without permission from N&W dispatcher at Roanoke. Telephone located in west end of building at Shenandoah Jet. to communicate with operator Martinsburg, N&W dispatcher and N&W operator.

Note 2.—Trains using depressed track, West Cumbo, will report clear at East end and will secure permission from operator West Cumbo before making westward movement.

Note 3.—Western Maryland Railway Operating Rules are in effect on all tracks north of No. 4 track between Miller and Hagerstown.

1-C.—Trains and engines of other railroads will be governed by Baltimore and Ohio Railroad timetables, rules and regulations when using Baltimore and Ohio tracks.

### 2.—LOCATION—STANDARD CLOCKS, BULLETIN BOARDS, GENERAL ORDERS AND WATCH COMPARISON FORMS.

STATION	LOCATION OF CLOCK	GENERAL ORDERS, ETC.
Hagerstown	Caller's Office	Caller's Office*
Brunswick	Caller's Office	Caller's Office*
	"WB" Tower	"WB" Tower *
Martinsburg	Yard Office	Yard Office*
	"NA" Tower	"NA" Tower
Miller	Miller Tower	.....
Hancock	HO Tower	HO Tower*
	East Hump Yard Office	East Hump Yard Office*
Cumberland	Caller's Office	Caller's Office*
	"WC" Telegraph Office	"WC" Telegraph Office*
	Telegraph Office	Telegraph Office
Keyser	Caller's Office	Caller's Office*
	Brakeman's Room, E. B. Hump	Brakeman's Room, E. B. Hump*

2.—Concluded.

STATION	LOCATION OF CLOCK	GENERAL ORDERS, ETC.
M&K Jct.	M&K Jct. Shop	M&K Jct. Shop*
	MK Tower	MK Tower
Morgantown	Telegraph Office	Telegraph Office*
	Yard Office	Yard Office*
Grafton	"GR" Telegraph Office	"GR" Telegraph Office
	Caller's Office	Caller's Office*

\*Crew Register Books—In service for the purpose of registering the arriving and relieving times of crews and other required information.

4.—CLEARANCE CARD FORM A.

(a).—Rule 111 is modified to permit trains to leave the stations designated below without Clearance Card Form A, except when train order signal (where provided) is displayed for orders.

<u>Station</u>	<u>Train/s</u>
Weverton.....	All trains
Green Spring.....	All trains
Petersburg.....	All trains
Tunnelton.....	Trains turning

(b).—Train Order Board will not be displayed for *TRAINS ORIGINATING* at stations and in directions as designated below. Rules 207, 221 and 222 modified. In complying with Rule 111, trains are required to receive Clearance Card Form A before leaving the following stations.

<u>Station</u>	<u>Train/s</u>
"WB" Brunswick .....	Westward freight trains originating Weverton.
Martinsburg .....	All Trains
Cumbo .....	Westward Trains
Hancock .....	All Trains
Miller .....	Westward Trains
Mexico .....	Eastward Freight Trains
"WC" Cumberland .....	Passenger Trains originating.
Viaduct Jct. ....	Westward Trains
Keyser Station .....	Eastward Trains
West Keyser .....	Westward Trains
M&K Jct. ....	All Trains

(c).—Westward trains authorized by a signal indication to use No. 2 track from westward home signal, Harpers Ferry, may proceed against the current of traffic to Harpers Ferry station.

5.—MAXIMUM AUTHORIZED SPEED.

Definition: *Maximum Authorized Speed.*—The maximum speed authorized by timetable or by Special Instructions for a subdivision or a portion of a subdivision subject to designated speed restrictions.

BETWEEN	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
<i>East End Subdivision:</i>			
Weverton and Cumberland, except No. 4 track between Miller and West Cumbo	60	50	45
Miller and West Cumbo, No. 4 track	40	40	40
Frog Hollow Branch	.....	.....	20
Berkeley Spring Industrial track	.....	.....	20
South Branch Subdivision	25	25	25
Patterson Creek Subdivision	35	35	35
<i>West End Subdivision:</i>			
Cumberland and Piedmont	50	45	40
Piedmont and first curve west of Swanton	35	30	25
Bond and Big Curve, No. 3 track	25	25	25
First curve west of Swanton and one mile west of Altamont	45	40	40
One mile west of Altamont and Oakland Station	50	45	40
Oakland Station and Terra Alta	45	45	40
Terra Alta and Mile Post 251, No. 2 track	20	20	20
Mile Post 251 and MK Tower, No. 2 track	30	30	30
Terra Alta and McMillan, Nos. 1 and 3 tracks	35	30	25
McMillan and MK Tower, Nos. 1 and 3 tracks	45	45	40
MK Tower and Blaser	35	30	25
Blaser and West End	45	45	40
West End and Independence, Nos. 1 and 3 tracks	35	30	25
Independence and Hardman, Nos. 1 and 3 tracks	40	40	40
West End and 1 mile east of Newburg, No. 2 track	20	20	20
1 mile east of Newburg and Hardman, No. 2 track	30	30	30
Hardman and East Grafton	45	45	40
<i>M&amp;K Subdivision:</i>			
M&K Jct. and Manown	25	25	25
Manown and Morgantown	20	20	20

Note 1.—Trains having 25 percent or more of cars in train loaded with sand, coal, ore or stone will observe speed for "Other Freight" trains.

Note 2.—Trains with 30 or more open top loads of coal, sand, stone and ore will be governed by speed restrictions applying to "Other Freight" trains, but will not be operated in excess of 40 m.p.h.



5.—Concluded.

Note 3.—Unless otherwise restricted, shop car trains will not be operated in excess of 25 m.p.h.

5-A.—SPEEDS—DIESEL UNITS.

Unless otherwise restricted to lower speeds, diesel units must not exceed the speed designated below. When units are intermixed in multiple control, the lowest speed applicable to any of the units must be observed.

DIESEL UNITS	M.P.H
1408-1413, 1415-1430, 1433-1457, 2407-2419, RDC 1900-1910, 1951, 1960, 1961, 1970	79
RDC 9082	75
2234-2249, 3500-3575, 3684-3699, 6700-6701, 6900-6976, 7400-7499	70
1826-1840, 4106-4110, 4128-4137, 4467-4499, 4500-4599, 4600-4654, 5420-5499, 5500-5537, 6400-6499, 6500-6599, 6600-6618, 6693-6699, 6702-6708, 7032-7093, 7503-7546, 8500-8506, 9400-9428, 9600-9621	65
9000-9099, 9100-9144, 9150-9155, 9200-9278, 9376-9399, 9500-9551, 9700-9726	60
8400-8422	45
8301-8302	35

5-B.—CHECKING SPEED RECORDERS.

Engineers will check speed recorders between posts located one mile apart at following points:

Westward.....	Between Kearneysville and Vanclevesville
	"    McKenzie and Rawlings
	"    Deer Park and Mountain Lake Park
Eastward.....	Between Thornton and Irontown
	"    Patterson Creek and Green Spring

5-1.—SPEED RESTRICTIONS.

LOCATIONS AND CONDITIONS	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
<i>East End Subdivision:</i>			
First curve west of Weverton	50	50	45
Millers Bend	45	45	40
Diverging movement through Harpers Ferry interlocking	15	15	15
Curve, Harpers Ferry	50	50	40

5-1.—Continued.

LOCATIONS AND CONDITIONS	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
<i>East End Subdivision—Continued:</i>			
Curves between Little Tunnel Cut and Island Park, No. 1 track	45	45	40
First and second Curve East of Engle, No. 1 track	50	50	40
Curve, Engle, and first Curve West, No. 1 track	50	50	40
Harpers Ferry and first curve West of Engle, No. 2 track	45	45	40
Curve, Shenandoah Jct.	45	45	40
Diverging movement through Hobbs interlocking	30	30	25
Rutherford Curve	50	50	40
Couchmans Curve	50	50	40
Old House Curve	50	50	40
Diverging movement through Martinsburg interlocking	15	15	15
Between Rattling Bridge 48 and Stewarts Road Crossing	40	40	40
Stewarts Road Crossing and Dry Run Curve, East of York Hill	45	45	40
Diverging movement through West Cumbo interlocking	50	50	40
Curve, West End Cumbo Yard	30	30	25
Crossing frog, West End Cumbo Yard, No. 4 track	55	50	40
East End North Mountain Cut to Back Creek Bridge 53	25	25	25
Curve, Black Rock, one-half mile West of Back Creek Bridge 53	45	45	40
Diverging movement through Miller interlocking	55	50	40
Miller and First Curve West	30	30	25
Diverging movement through HO Tower interlocking	50	50	40
Curve, Grasshopper Hollow	30	30	25
Round Top Curve	50	50	40
Ambrose Curve	45	45	40
Dry Wall Curve	45	45	40
Turkey Foot Curve	55	50	40
Upper Turkey Foot Curve	45	45	40
Curve, Orleans Road	50	50	40
Diverging movement through Orleans Road interlocking	50	50	40
Curve, Rockwell's Run	30	30	25
Curve, East End Doe Gully Cut	55	50	40
Randolph Tunnel	50	50	40
Kesler's Curve	55	50	40
Curve, West End Concrete Wall	50	50	40
Diverging movement through Okonoko interlocking	50	50	40
	30	30	25



LOCATIONS AND CONDITIONS	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
<i>East End Subdivision—Concluded:</i>			
First and Second Curves East of Green Spring	45	45	40
Patterson Creek, No. 3 to No. 3	35	35	35
Patterson Creek, No. 1 to No. 1	45	45	40
Patterson Creek, No. 2 to No. 3	30	30	30
Curve, Patterson Creek, No. 2 track	30	30	30

*Note.*—Trains reversing 2 to 3 at Patterson Creek and Eastward trains from Patterson Creek SD to No. 2 will observe speed restrictions for diverging movements.

Diverging movement through Patterson Creek interlocking	25	25	25
Curve, Mexico	50	45	40
Diverging movement through Mexico interlocking	25	25	25
Between First Curve west of Mexico and Virginia Ave.	50	50	40
Curves between Virginia Ave. and William Street, Cumberland	45	45	40

*South Branch Subdivision:*

Bridges 562 and 571	10	10	10
Curve, Cut East of Grace	15	15	15
Rocks and one-fourth mile East	10	10	10
Curve, road crossing West of Rocks	15	15	15
First Curves East and West of Vance	15	15	15
Curve, Salt Peter Rock, West of Trough Club	15	15	15
First Curve East, First and Second Curves West of Sycamore	15	15	15
Curves, between Brook Hill and Bridge 578	15	15	15
Curves, between Welton and Bridge 587	15	15	15

*Patterson Creek Subdivision:*

Big Cut	35	35	30
Cut East of Knoblev Tunnel	35	35	30

*West End Subdivision:*

Street Crossings, Cumberland	25	25	25
Diverging movement through Viaduct Jet. interlocking	15	15	15
Curves between Viaduct Jet. and Kelly Springfield Tire Plant	30	30	25
Curve, West of Fairgo Crossing	45	45	40
Curve, West of Brady	45	45	40
Mile Posts 186 and 187, East of McKenzie	40	40	40
McKenzie, between home Signals No. 1 to 1 track and No. 2 to 2 track	25	25	25
Diverging movements through McKenzie interlocking except No. 2 to No. 3 track	15	15	15

LOCATIONS AND CONDITIONS	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
<i>West End Subdivision—Continued:</i>			
No. 2 to No. 3 track, McKenzie	35	35	35
Curves between Mile Posts 192 and 194, West of Rawlings	45	45	40
Lynch's Curve, one mile West of Black Oak	45	45	40
First Curve East of Dawson	45	45	40
1st and 2nd Curves West of 21st Bridge	45	45	40
Bull Neck Curves	40	40	40
Curve, Mile Post 205	40	40	40
Diverging movements through West Keyser interlocking	30	30	25
Diverging movements through Piedmont interlocking	15	15	15
Kelley's Curve, W. Va. Cent. Jct.	30	30	25
First Curves East and West of Bloomington	30	30	25
Bear Hollow Curve	30	30	25
Warnick's Curve	30	30	25
Everett Tunnel Cut	30	30	25
Big Curve	30	30	25
No. 3 track between Big Curve and Bond	25	25	25
Diverging movements through Bond and Big Curve interlocking	30	30	25
Bond and one mile West of Bond No. 1 track	25	25	25
Bond and one mile West of Bond No. 2 track	30	30	25
First four Curves East of Frankville	30	30	25
Four Curves, Mile Post 215	30	30	25
Curve, Jones' Cut, East of Hitchcock Tunnel	30	30	25
First Curve East of Strecker	30	30	25
Strecker and one mile West of Strecker No. 1 track	25	25	25
Strecker and one mile West of Strecker No. 2 track	30	30	25
First Curve West of Bridge 81	30	30	25
First Curve West of Swanton No. 1 track	30	30	25
First Curve West of Swanton No. 2 track	35	35	25
Diverging movements through Altamont interlocking except from No. 2 track and Eastward siding	15	15	15
No. 2 track and Eastward siding Altamont	30	30	25
Cut East of Oakland Station and West end of Station platform	30	30	30
Curves, Bridge 88 to one mile West of Bridge 88	35	35	35
56 Curve, Mile Post 235	40	40	40
Snowy Creek Curves	35	35	35

5-1.—Concluded.

LOCATIONS AND CONDITIONS	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
<b>West End Subdivision—Concluded:</b>			
Diverging movements through Terra Alta interlocking	30	30	25
Salt Lick Curve, Nos. 1 and 3 tracks	30	30	25
McVickers Curve, Mile Post 249-30	30	30	25
Diverging movements through MK Tower interlocking, except between No. 1 and No. 2 tracks	30	30	25
Between No. 1 and No. 2 tracks, MK Tower	15	15	15
MK Tower and Cheat River Bridge 92, No. 1 track	30	30	25
Curve, Clements Fountain	30	30	25
Diverging movements through Blaser interlocking	30	30	25
Curve East of Tunnelton Station	40	40	40
First Curve East of Kingwood Tunnel	35	35	25
Kingwood Tunnel	35	35	25
Diverging movements through West End Tower interlocking	30	30	25
Curve, 83 Fill	30	30	25
Austin Tunnel Cut	30	30	25
Three Curves West of Newburg	30	30	25
Diverging movements through Hardman and Newburg interlockings	30	30	25
First Curve West of Thornton	35	35	35
96 Curve	40	40	40
First Curve East of Lesmalinston	35	35	35
<b>M&amp;K Subdivision:</b>			
Curve 1½ miles West of Manheim	20	20	20
Curve 2 miles West of Manheim	20	20	20
Curve ¼ mile East of Cheat River Bridge—Trowbridge	20	20	20
Curve West End of Cheat River Bridge—Trowbridge	20	20	20
Curve East of Switch to Sandy Creek Fuel Siding—Albright	20	20	20
Between west portal old Elkins Tunnel and 800 ft. West	10	10	10
Over cinder fill one-half mile West of old Elkins Tunnel	10	10	10
Around Wye Kingwood	10	10	10
Over sinks Furnace Hill, one-half mile West of Dellslow	10	10	10
Over sinks West of Rock Forge and Molisess Curves	10	10	10
Hog Back Curve	10	10	10
Curve, East of Walnut Street Crossing	10	10	10
Between Walnut Street Bridge OD and Morgantown	10	10	10

5-1(a).—GENERAL, ALL SUBDIVISIONS.

UNLESS OTHERWISE RESTRICTED TO LOWER SPEEDS	PSGR. TRAINS	MFST. TRAINS	OTHER FRT.
	MPH	MPH	MPH
Diverging movements through hand-operated Cross-overs and Turnouts	15	15	15

5-1(b).—SPEED RESTRICTIONS, LIGHT ENGINES.

(a).—Light engines (multiple) unless otherwise restricted to lower speeds, light road diesel units equipped with dynamic brakes will observe maximum speed for MFST freight trains. Light road diesel units not equipped with dynamic brakes will observe maximum speed for OTHER freight trains.

(b).—Light engines (single unit) unless otherwise restricted to lower speeds, light single units will be governed by maximum speeds shown below:

Yard diesel (switching unit).....	30 m.p.h.
Road diesel unit.....	30 m.p.h.
Budd (RDC) unit.....	30 m.p.h.
Sperry car.....	30 m.p.h.

(c).—Six-unit light engines will not exceed 30 miles per hour descending grades.

(d).—Units 7400-7499 operating light will not exceed 25 m.p.h. descending Newburg, Cheat River, Cranberry and 17 mile grades.

(e).—Units 7400-7499 handling trains will not exceed 30 m.p.h. descending Newburg, Cheat River, Cranberry and 17 mile grades.

5-1(c).—TRAINS HANDLING RELIEF CRANES.

UNLESS OTHERWISE RESTRICTED	M.P.H.	M.P.H.
	East End	West End
Crane in back of engine.....	35	30
Crane ahead of engine.....	20	20

5-2.—SPEED RESTRICTIONS—EQUIPMENT.

UNLESS OTHERWISE RESTRICTED	M.P.H.
Foreign Line short ore cars:	
Tangents.....	30
On curves.....	20
Other than B&O Relief (Wreck) Cranes, unless otherwise restricted by Train Order, derrick cars, power shovels, cranes, ditchers and similar pivoted machinery moving on their own wheels.	
On tangents..	20
On curves.....	15
Westward stone and ore trains (See Note 1)	30

Note 1.—Westward stone and ore trains will not exceed speed of 30 miles per hour between Hobbs and Martinsburg and between North Mountain and Cherry Run.



### 5-2(a).—PIVOTED CRANES.

Except relief or work trains, trains handling cranes moving on own wheels must have boom secured in trailing position.

### 6-3.—ENGINE AND EQUIPMENT RESTRICTIONS—GENERAL.

(a).—*Hauling Dead or Disabled Engine in Train.*—Dead or Disabled engines must not be dispatched or moved in any train, without authority of the Chief Train Dispatcher, who will secure instructions from the proper Mechanical Department Officer before authorizing movement. When for any reason lower speeds than specified in timetable are required, such speeds will be requested before engine is dispatched. When enroute and conditions require further speed restrictions, Chief Train Dispatcher should be so notified, who will advise whether to set engine out or reduce speed.

(b).—*Scale Tracks.*—except *Westbound Hump, Cumberland.*—Engines must not be operated over live rail of scale tracks. Cars with gross weight exceeding 220,000 lbs. must not be moved on track scales with capacity of less than 200 tons.

(b-1).—*Scale Track, Green Spring.*—All trains receiving signal to enter scale track are to be considered as trains to be weighed, unless otherwise instructed.

Rules 251-254 and 505-519, inclusive, are in effect on Green Spring scale track siding from pull-in switch, Dans Run, to E. T. C. sign.

Trains and engines using siding between E. T. C. sign and CPL signal at east end of siding will operate at restricted speed.

Scale readiness indicator lights are installed on signal mast located south of scale track, 1200 feet west of scale. Eastward trains must not pass this scale readiness light if lights are extinguished or if red light is burning, but will secure instructions from Operator, Patterson Creek. If white light is displayed, trains will proceed, not exceeding 5 miles per hour.

When speed of train is in excess of 5 miles per hour, the white light will flash, engineers should continue to move but reduce speed of train slowly to 5 miles per hour when light will again burn steadily.

Tri-angular speed signs have been placed every 484 feet to enable engineers to regulate their speed to 5 miles per hour. Time between signs for speed of 5 miles per hour is one minute six seconds.

When trains being weighed stop on scale for any reason before weighing is completed, member of crew will contact Chief Dispatcher, giving number of car standing on scale and location of car in train from head end. Member of crew will receive authority from Chief Dispatcher whether or not to back off and reweigh or proceed without backing up. Failure or irregularities in the operation of scale readiness indicators, speed indicators or any other condition must be reported to the Operator, Patterson Creek, immediately. Trains using scale track for purposes other than weighing will not exceed 10 miles per hour passing over track scale.

(c).—*Handling Defective Cars in Train.*—Unless otherwise authorized by the Superintendent, cars with broken center sills, defective drawbars, draft gears, or similar defects must be handled on rear behind the caboose of freight trains other than manifest. Air brakes must be cut in and in proper working condition.

### 6-3(c).—Continued.

If air brakes are inoperative or if there is question of drawbar standing the pull, such car must be chained to the caboose.

Mechanical Department employe reporting such defective equipment ready for movement will designate the speed required for safe movement.

Trains having chained cars on the rear on ascending grades, engine will be coupled to rear of same and Engineer on this engine will use only sufficient power to keep engine against train.

(d).—*Heavy Cars.*—Cars with gross weight exceeding 263,000 lbs. must not be operated without authority of Superintendent. (See TTSI 6-3(x).)

(e).—*Handling Loaded Welded or Continuously Jointed Rail Cars.*—Cars loaded with welded or continuously jointed rail must be handled in through trains as follows:

A loaded hopper car as a buffer must be placed on each end of the rail cars. Except for cars relating to the welded rail such as unloading cars, etc., no other equipment will be handled in this type train, and speed must not exceed 30 MPH except through tunnels and over truss bridges where speed must not exceed 10 MPH.

(f).—*Scale Test Cars.*—In regular service must be handled three cars ahead of caboose and train must have 85% operative air brakes. Train on which handled must not exceed maximum speed of 35 miles per hour. First paragraph, Rule C-229, of Form CDT-30 modified accordingly.

(g).—*Pullman Standard PS-2CD 4000 or greater Cubic Foot Capacity 100 Ton Covered Hoppers.*—Trains handling these cars on six degree or sharper curves must maintain speed in excess of 25 miles per hour. Trains not being able to maintain a speed greater than 25 miles per hour must reduce to a speed not to exceed 10 miles per hour. Train and engine crews should observe these cars frequently enroute and where excessive rocking is noted, crews should promptly reduce speed below the 10 miles per hour limit.

Location of all six degree or sharper curves are listed in General Notice.

Train and engine crews will be given train order notifying them when their train contains any of these cars.

These cars must not be moved on the Advance Manhattan, Manhattan, Manhattan Jet, St. Louisan, Advance Chicagoan, Chicagoan, Chicago Jet, St. Louis Jet, New York Jet, Baltimore Jet or New Yorker.

(h).—*Handling Hydrocyanic Acid (HCN) Tank Cars.*—Tank cars containing Hydrocyanic Acid (HCN) painted white with horizontal and vertical red stripes placarded on both sides and ends of cars must be handled according to the following instructions.

1. To be handled only when authorized by message over the signature of the Chief Dispatcher.
2. Notify Chief Dispatcher immediately of any occurrence that may be hazardous.
3. In case of suspected leakage, isolate car and keep all except authorized persons away.
4. Under no circumstances should other than authorized persons get close to car in case of derailment.



(h).—Concluded.

5. Read carefully the placarded instructions posted in yard offices, cabooses and work force bunk cars involving the handling of these cars.
6. Instructions attached to each waybill and boarded instructions on each car must be complied with.
7. These instructions are applicable to empty cars as well as loaded cars.

(i).—*DODX and USNX 28000 Series 50-ton, 50 foot DX Box Cars.*—Must be handled not more than 16 cars ahead of occupied caboose when length of train permits, complying with Section 74.589(g), ICC regulations for transportation of explosives and other dangerous articles, etc., dated April 10, 1961. **THESE CARS MUST NOT BE HANDLED IN TRAINS REQUIRING HELPER SERVICE.**

(j).—*Reachers.*—Reachers must be used in switching tracks or portions of tracks not safe for engines.

(k).—*Handling of Loaded Bi-Level and Tri-Level Cars.*—Loaded bi-level and tri-level cars must not be placed directly behind open gondola or hopper cars loaded with sand, gravel, coal or similar commodity.

(l).—*Loaded Foreign Line Cars.*—Loaded foreign line cars of 70 tons or greater capacity with length of 37 feet 9 inches or less between pulling faces of coupler knuckles must not be operated without authority of the Superintendent.

(m).—*Air Dump Cars.*—Will be handled in local freight trains only and speed must not exceed 30 MPH.

(x).—ENGINE AND/OR EQUIPMENT RESTRICTIONS.

Unless otherwise authorized by the superintendent, engines and/or equipment are restricted in use of tracks, bridges, trestles, etc., as designated below:

STATION, TRACK, BRIDGE, ETC.	ENGINE OR EQUIPMENT	RESTRICTION
<i>Blairton, W. Va.:</i> Bridge 46½/2	1826-1840, 3684-3699, 7400-7499 Cars with gross weight exceeding 210,000 lbs.	Must not operate on.
<i>Martinsburg, W. Va.:</i> C. A. Miller Siding Bridge 50¾/1	All engines Cars with gross weight exceeding 220,000 lbs.	
<i>J. W. Bishop Siding</i> Bridge 50¾/2	All engines Cars with gross weight exceeding 220,000 lbs.	
<i>Frog Hollow Industrial Track:</i> Bridge 50/1	All engines All cars	
<i>North Mountain, W. Va.:</i> United Clay Products Co. Siding Bridge 52½/1	All engines	

6-3 (x).—Continued.

STATION, TRACK, BRIDGE, ETC.	ENGINE OR EQUIPMENT	RESTRICTION
<i>Berkeley Springs Industrial Track:</i> Bridges 2, 5, 6, 10	Cars with gross weight between 240,000 and 263,000 lbs.	Must not exceed 10 miles per hour.
<i>Green Spring, W. Va.:</i> Power House Bridge	1454-1457, 1826-1840, 3500-3575, 3684-3699, 6600-6618, 6693-6699, 6900-6976, 7400-7499 Cars with gross weight exceeding 190,000 lbs.	Must not operate on.
<i>South Branch SD:</i> Green Spring to West Romney	Cars with gross weight exceeding 251,000 lbs.	Must not operate on.
<i>West Romney to Petersburg</i>	1454-1457, 1826-1840, 3500-3575, 3684-3699, 6600-6618, 6693-6699, 6900-6976, 7400-7499 Cars with gross weight exceeding 210,000 lbs.	
<i>Cumberland, Md.:</i> Bolt & Forge Bridge 66⅝/2	Cars with gross weight exceeding 251,000 lbs.	
<i>Kelly Springfield</i> Bridge 70AF/1	All engines	Must not operate under.
<i>Kelly Springfield</i> Bridges 70AF/2 & 70AF/3	Cars with gross weight exceeding 251,000 lbs.	
<i>Amcelle</i> Bridge 71/2	Cars with gross weight exceeding 240,000 lbs.	
<i>W. Va. Central Jct. (WM Connection):</i> Bridge 78½	Cars with gross weight exceeding 240,000 lbs.	
<i>M&amp;K Subdivision:</i> Cadell, Caroline No. 3 Tipple	All engines	Must not operate on.
<i>Albright, Preparation Plant tipple</i>	All engines	
<i>Burk, Mine Siding</i> Bridge 16/1	Cars with gross weight exceeding 240,000 lbs.	Must not pass tipple.
<i>Arthurdale, Premco Mine</i>	All engines	
<i>Bretz, Caroline No. 5 Mine</i>	All engines	Must not operate by coal chute.
<i>Masontown, Omega Mine Siding</i>	All engines and all box cars	



STATION, TRACK, BRIDGE, ETC.	ENGINE OR EQUIPMENT	RESTRICTION
<i>M&amp;K Subdivision: Concluded: Greer, Stone Tipple</i>	All engines	Must not operate under.
Greer, New Loading Track	All engines Cars with gross weight exceeding 220,000 lbs.	Must not operate on.

Movement over all Industrial bridges and trestles must not exceed 10 m.p.h.

### 8.—USE OF ELECTRIC LOCKED SWITCHES.

To enter tracks equipped with electric locks, movement must stop within 100 feet of switch. After obtaining permission from operator, remove switch lock. After indicator light is lit operate foot treadle to release electric lock.

To enter main track at electric locked switch, obtain permission from operator, then remove switch lock. After indicator light is lit operate foot treadle to release electric lock.

### 8-1.—USE OF NON-ELECTRIC LOCKED SWITCHES.

Following switches not equipped with electric locks. Trains and engines are prohibited from clearing in these tracks:

- Siding off No. 2 Track, Sleepy Creek
- Siding off No. 2 Track, Old Sand Works, Hancock
- Siding off No. 2 Track, Sir Johns Run
- Siding off No. 2 Track, Great Cacapon
- Siding off No. 2 Track, Orleans Road
- Siding off No. 1 Track, Hansrote
- Siding off No. 2 Track, Little Cacapon
- Siding off No. 1 Track, Macaroni Company, Cumberland

### 9.—ADDITIONAL INSTRUCTIONS AUTOMATIC BLOCK SYSTEM.

*Crossing Over or Occupying Main Tracks.*—In automatic block territory hand operated switches must be opened 5 minutes before fouling main or crossover tracks.

(a).—*Green Spring.*—Trains and engines must not enter No. 3 track at Green Spring except on verbal permission of the train dispatcher obtained through operator at Patterson Creek. After such permission has been obtained, trains so authorized may move on No. 3 track in the direction specified by the train dispatcher.

Before train dispatcher authorizes movement he must know that the track is clear of opposing or conflicting movements and receive acknowledgement from operator, Patterson Creek, that proper switches and/or signals at Patterson Creek and Okonoko are blocked in position to protect the movement. Rule 220-A modified.

(b).—*Patterson Creek.*—Eastbound trains receiving approach indication on distant signal No. 3 track, Patterson Creek Subdivision, will stop and call operator at Patterson Creek for instructions. Phone located at Distant Signal.

(c).—*Protection—Single Budd (RDC) Units: General.*—When single unit Budd and RDC units are operated where Rules 505 to 519, inclusive, are in effect, the following will govern when car is stopped. It shall immediately be moved forward ten (10) feet and second stop made without the use of sand. If car cannot be moved forward immediately, flagman must go back a sufficient distance to stop a train moving at normal speed. Passengers will not be permitted to entrain or detrain until second stop is made.

Dispatchers or operators controlling interlockings and traffic control systems will not operate switches in route taken by single Budd (RDC) units and single units of Diesel engines running light until it has been ascertained that movement through the route has been completed.

(d).—*Spacing Trains.*—Absolute block must be maintained behind trains carrying passengers descending Seventeen Mile, Cranberry, Cheat River and Newburg Grades.

Trains carrying passengers descending Seventeen Mile, Cranberry, Cheat River and Newburg Grades must be spaced ten (10) minutes behind trains not carrying passengers.

(e).—*Terra Alta.*—Trainmen handling West Wye switch Terra Alta, will get permission from operator before opening switch, and, after switch has been opened, will notify operator promptly. Dwarf signal will then be given authorizing movement.

### 10.—FIXED SIGNALS NOT IN CONFORMITY WITH THE BOOK OF RULES.

(a).—*Reflectorized Targets.*—Rules 272 and 296 are modified to permit the use of reflectorized targets instead of lamps on switches and derails.

### 10-1.—HAND SIGNALS—FLAGGING.

(a).—Rule 99 is modified as follows:

Unless otherwise provided, trains, engines and other On Track equipment must be given flag protection as follows:

*When Moving.*—Lighted fuseses must be dropped at proper intervals to insure full protection when moving under circumstances in which may be overtaken.

*When Standing.*—A member of crew must go back immediately with proper flagging equipment a sufficient distance to insure full protection, placing two torpedoes on rail, and, when necessary, displaying lighted fusee. When recalled, if safety will permit, he may return, leaving lighted fusee and torpedoes when conditions require.

When necessary, head end must be protected in the same manner.

Stop signals must be answered promptly. Flagging signals will be repeated until answered.



### 10-1.(a).—Concluded

**Exception.**—Except in the States of Pennsylvania and West Virginia, when operating under Automatic Block System Rules 505 to 519, inclusive, rear end flag protection for *Trains* or *Engines* is not required against following movements on the same track, except as provided by Rules 98(B), 511, 512, 514 and 515. (Does not apply to other On Track equipment or where Special Instructions require otherwise.)

**Note.**—The foregoing EXCEPTION shall not apply in Maryland where the visibility for following movements on the same track in automatic block signal territory is restricted by terrain or weather conditions.

(b).—**Flagging Equipment.**—Rule 11-A is modified to eliminate red and white lanterns on engines.

(c).—Third-class trains on South Branch Subdivision are relieved from protecting rear of train. When other trains are operated on this subdivision, third-class and extra trains will be notified to protect against other trains in accordance with Rule 99. Rule 99 modified.

(d).—**Flagging in Passing Sidings.**—Rule 99 is supplemented to require flag protection in the passing sidings.

(e).—**Use of Yellow Fuses.**—Yellow fuses will be used for passing signals where view of hand or lantern signals is restricted. Red fuses must not be used for any other purpose than to give stop signals.

### 10-2.—HAND-OPERATED SWITCHES.

(a).—Unless otherwise provided, hand signal from operators or operator-switchtenders will govern movements over the hand-operated switches designated below:

**Baltimore Street, Cumberland.**—All switches on Nos. 1 and 2 main tracks and facing point switch from No. 2 main track to No. 1 yard track, eastbound running track and westward engine lead.

Blue Signal will govern eastward movement instead of Green. Rule 13(A) modified.

**Virginia Avenue, Cumberland.**—All switches. Proceed hand signal is not required for trains on Nos. 1 and 2 main tracks moving under signal indication, except diverging movements into yard.

### 10-3.—NORMAL POSITION OF HAND OPERATED SWITCHES.

(a).—Switches west end of Transfer Tracks Tunnelton lined for West Virginia Northern Railway.

(For normal position of yard switches, See TTSI 16-1.)

### 11.—MARKERS—GENERAL.

(a).—Last paragraph of Rule 28 is modified to permit trains of other railroads to display markers as prescribed by that railroad when operating on Baltimore and Ohio rails.

(b).—**Freight Trains.**—In accordance with Rule 28 the use of reflectorized markers is permitted on Freight Trains only.

### 11-1.—CLASSIFICATION SIGNALS.

(a).—Red classification lights (when so equipped) may be used as markers on engines.

(b).—**South Branch Subdivision.**—Rules 21 and 22 are not in effect.

(c).—**M&K Subdivision.**—Rule 22 is not in effect.

### 12.—USE OF SIDINGS AND SPECIFIED TRACKS.

(a).—**Industrial Tracks.**—Crews performing work at industries equipped with gates or doors manually or electrically operated and protected by a derail (or lock) will not remove derail (or lock) until gates or doors are fully opened, except where derail (or lock) controls operation of gate or door, movement must not be made until it is known gate or door is fully opened and secured.

Gates and doors must be closed and secured and derails (where provided) replaced after work is completed.

(b).—**Storage Tracks.**—When cars are set off in storage tracks, Train Dispatcher must be notified.

### 13.—AIR BRAKES.

(a).—Regular sections of trains designated “Chicagoan”, “New Yorker”, “St. Louisan”, “Advance Manhattan”, “Manhattan”, “Chicago-St. Louis Trailer Jet”, “St. Louis Trailer Jet”, “New York Trailer Jet”, “Manhattan Trailer Jet” and “Baltimore Jet”, will carry 90 pounds brake pipe pressure.

### 13-1.—HANDLING TRAINS ON GRADES.

(a).—**Stopped on Grades.**—When trains stop on descending grades and Flagman is recalled, proceed signal will not be given until brake pipe is properly charged.

(b).—**Setting Off Cars.**—When necessary to set cars off on grade, air brakes will be applied, hand brakes set on all cars, then air brakes released.

(c).—**Handling of Tonnage Trains on Cheat River Grade With Pusher Attached on Rear.**—Leading engineer will reduce power in advance of Hill Track switch at Tunnelton, permitting the pusher to regulate speed of train over the summit, not to exceed 15 m.p.h.

Set up dynamic brake lightly in vicinity of Hill Track switch at Tunnelton. Make an eight-pound initial brake pipe reduction immediately after passing over the summit and follow with the necessary light reductions to control the speed, not to exceed 20 m.p.h. If train has been overbraked for any reason, it will be permissible to pull train not exceeding two miles, providing brake pipe reduction does not exceed 20 pounds.

Pusher engineer will control speed of train over summit by using power as needed. The least amount of power will be used as is possible, and still keep train bunched until the rear end passes over the summit. Throttle will be closed on descending grade. Air brakes will not be partially or wholly released on units if air is applied in emergency.



### 13-1.—Concluded.

(d).—*Operation of Tonnage Trains—17-Mile Grade.*—Normal operation should allow the train to pass over the summit just east of overhead bridge at Altamont at approximate speed of 10 m.p.h. As speed starts to increase, an initial reduction of eight pounds brake pipe pressure should be made; close throttle and apply dynamic brake. Make further air reduction as necessary, approaching Swanton Flats, not exceeding 30 m.p.h. After train is over Flats, endeavor to regulate speed of train at 20 m.p.h. East of Swanton Flats to Kelly's Curve with the use of the dynamic brake.

At no time will the train be pulled with air brakes applied for a distance greater than two miles, or if brake pipe reduction is greater than 20 pounds.

### 13-2.—USE OF RETAINERS.

(a).—*General.*—When retainers are used they will be placed in holding position before descending grade.

(b).—*Seventeen Mile and Cheat River Grades.*—High pressure position on all loaded cars and low pressure position on all empty cars, except 5 rear cars in train.

Retainer valves will be turned down on Eastward trains at MK Tower, on Cheat River Grade, and after passing Bloomington, on Seventeen Mile Grade.

(c).—*Cranberry and Newburg Grades.*—High pressure position on all loaded cars.

Low pressure position on 50 percent of all empty cars beginning with car nearest to engine.

Retainer valves will not be turned down until Westward trains have passed McMillian on Cranberry Grade, and, Raccoon Valley Junction on Newburg Grade.

Slow direct exhaust position on 50 percent of cars in trains consisting entirely of empty open top cars, beginning with car nearest to engine, retainers to be set at originating terminal and turned down at bottom of Newburg Grade.

When retainers are used on Time Saver Trains descending Seventeen Mile, Cranberry, Cheat River and Newburg Grades, all retainers will be turned up to slow direct exhaust position before leaving Cumberland and Grafton and turned down before arrival in Grafton and Cumberland.

When retainers are used, short cycle method of braking will be used descending Seventeen Mile, Cranberry, Cheat River and Newburg Grades.

Tonnage trains, descending Seventeen Mile, Cranberry, Cheat River and Newburg Grades, that stop for any reason, will wait five minutes before attempting to proceed.

(d).—*Dynamic Brake.*—Dynamic brake will be used to assist in controlling speed of passenger trains descending Seventeen Mile, Cranberry, Cheat River and Newburg Grades. Dynamic brake will not be applied until automatic brake has been set with reductions totaling at least ten (10) pounds. Dynamic brake must not be released unless automatic brakes

### 13-2.—Concluded.

are set. In applying and releasing dynamic brake, extreme care must be used to avoid harsh slack action.

Westward loaded trains will carry 90 pounds brake pipe pressure between Oakland and Grafton.

Eastward loaded trains will carry 90 pounds brake pipe pressure between Newburg and final terminal.

Eastward loaded trains will not be required to stop at Blaser or Altamont to test brakes provided the required minimum brake pipe pressure of 80 pounds is shown on caboose gauge.

(e).—*M&K Subdivision.*—Following instruction will govern handling of retainers on M&K Subdivision:

High pressure position on all loaded cars descending grades Eastward Manown to one mile West of Kingwood, and, Kingwood to one mile East of Albright; Westward Manown to Arthurdale Mine and Cascade to Sabraton.

Low pressure position on two-thirds of empty cars starting with car nearest engine, descending grades Eastward Manown to one mile West of Kingwood, and, Kingwood to one mile East of Albright; Westward Manown to Arthurdale Mine, and, Cascade to Sabraton.

Trainmen will not turn down retainers on these grades until train arrives at bottom of grade.

Freight trains will make road test of air brakes before descending grades at Manown, Kingwood and Cascade.

Loaded trains will carry 90 lb. brake pipe pressure descending all grades on M&K Subdivision.

### 13-3.—FLAT MAINTAINING FEATURE.

*General.*—Freight Trains may be operated down Nine Mile, Seventeen Mile, Cranberry, Cheat River and Newburg grades and grades on M&K Subdivision without use of retainers when flat maintaining is operative on control unit; and from the controlling unit, the engineer has three operative dynamic brake units on tonnage trains and two operative dynamic units on QD trains.

In descending heavy grades with flat maintaining cut in, the initial reduction must not be less than 8 pounds. The endeavor should be to control the speed by use of flat maintaining and the dynamic brake so that it is uniform. If a train stops on descending grade, sufficient number of hand brakes, starting at the engine, must be applied promptly to secure it before air is released, if the independent brake on the engine will not hold train while brakes are being released and brake system recharged or retainers turned up. Should train part, sufficient number of hand brakes must be applied promptly to anchor both portions. A partial release of the brake during flat maintaining must never be attempted. If necessary to release on descending grade where retainers are otherwise required, stop will be made and brake system recharged before train proceeds.

Otherwise, retainers as specified must be used.

#### 14.—SPRING SWITCHES.

(a).—Spring switches are in service at the following locations:  
 Cumberland.....West Yard underpass to Open Track.  
 Keyser.....East Yard Keyser, No. 9 Yard Running Track to No. 8.  
 Hardman.....Pocket Track.

#### 14-1.—DUAL-CONTROL SWITCHES.

(a).—Interlocking rules 605-633 apply at Dual-Control Switch location, as follows:

Hobbs.....All switches. Controlled from Martinsburg.  
 McKenzie.....All switches. Controlled from Patterson Creek.  
 Piedmont.....All switches. Controlled from West Keyser.  
 Wilson.....East End Eastward Passing Siding, Altamont. Controlled from Altamont.  
 Rinard.....East End Eastward Passing Siding, Terra Alta. Controlled from Terra Alta.  
 McMillan.....East End Westward Passing Siding. Controlled from MK Tower.

#### 14-2.—POWER-OPERATED NON-DUAL CONTROL SWITCHES.

(a).—Remote controlled, power-operated, non-dual control switches are located as follows:

Orleans Roads .....All Switches  
 Dans Run.....Pull in switch off No. 2 track to Scale Track, Green Spring. Controlled from Patterson Creek.  
 Green Spring.....Pull out switch from Scale Track to No. 2 track east of Green Spring. Controlled from Patterson Creek.

Rules 605-632, inclusive, and Rule 106(B) are in effect. Rule 633 is not in effect.

#### 15.—INTERLOCKINGS.

(a).—Interlockings.—Rules 605-631, inc., are in effect at the following stations:

##### East End S. D.

Harper's Ferry  
 Martinsburg  
 West Cumbo  
 Miller  
 Hancock  
 Patterson Creek  
 Mexico

##### West End S. D.

Viaduct Jct.  
 West Keyser  
 Bond  
 Altamont  
 Terra Alta  
 MK Tower  
 West End  
 Hardman

#### 15.—Concluded.

(b).—*Closed Interlocking Stations.*—During the period that an Interlocking Station is closed, under provisions of Operating Rule 631, the movement of trains within interlocking limits must be confined to through movements on main track. The use of crossovers, junction switches and sidings within interlocking limits, including outlet switches, is prohibited unless Operator is called and on duty to control movement.

#### 16.—YARDS.

##### 16-1.—CUMBERLAND YARD.

TRACK/S	INSTRUCTIONS
*Westward Running Track (No. 1 Yard Track)	(a) Locates between Virginia Avenue and Union St., Cumberland. Current of traffic westward. Movements against the current of traffic on this track will be made on written instructions on authority of westbound hump yardmaster or under flag protection.
*Eastward Running Track	(b) Locates between Viaduct Junction and Virginia Avenue. Current of traffic eastward. Movements against the current of traffic on this track will be made on written instructions on authority of eastbound yardmaster or under flag protection.
**Open Track	(c) Locates between Mexico and Virginia Lane. Permission to use this yard track in either direction will be secured from the westbound hump yardmaster.
*Westbound Engine Lead	(d) Extends from Virginia Lane to Baltimore St. Movements against the current of traffic will be made on written instructions on authority of eastbound hump yardmaster or under flag protection.
Virginia Avenue	(e) Trains or engines using other than No. 1 or No. 2 main tracks except diverging movements from No. 2 main track into the yard will stop before fouling switches at Virginia Avenue, Cumberland, unless proceed signal is received from the operator.
Virginia Lane Switch Tender	(f) Switchtenders at Virginia Lane have jurisdiction over all movements to and from eastbound engine lead, westbound engine lead, all tracks, Yard E, C, A, except A2 and no movements will be made without first receiving the proper hand signal given by the switchtender in accordance with Rule 13(A).
No. 2 Main Track, Williams Street, Cumberland	(g) Westward movement on No. 2 main track will stop before fouling east end of crossover 1 to 2 main just east of Williams Street, Cumberland, and receive permission from operator switchtender, Baltimore Street, to proceed unless otherwise instructed.



16.-1.—Concluded.

TRACK/S	INSTRUCTIONS
Crossover Movements Running Tracks	(h) Crossover movements fouling either the eastbound running track, west running track, westbound engine lead will first secure permission from the operator at Baltimore Street, Viaduct Junction, or Virginia Avenue.
Virginia Avenue and Baltimore Street	(i) Bell will be rung by engines moving between Virginia Avenue and Baltimore Street.
Westbound Yard	(j) Engines, except assigned yard engines, must not operate over retarders.

\*Note 1.—Operators at Virginia Lane and Baltimore Street and Viaduct Junction will handle all engine and train movements in accordance with instructions from the yardmaster having jurisdiction.

\*\*Note 2.—The crossover switch at air compressor from open track to south lead will be left normal. Normal position west end of the crossover lined green for open track; east end of crossover lined yellow for North Lead.

16-2.—KEYSER YARD.

Eastward Running Track, Keyser Station and Ready Track	(a).—Movements against current of traffic may be made on this track under flag protection between Ready track and Callers Office.
No. 9 Track, West Keyser and Hump	(b).—Eastward movements will report clear at Hump. Westward movements will be made on permission of Operator at West Keyser before fouling switch at Hump.

17.—HELPER ENGINES.

(a).—*Tunnels.*—Helper engines will not be detached from Eastward freight trains until rear of train has reached West portal of Kingwood Tunnel and East portal Knobley Tunnel unless train is stopped and helper engineer fully understands the move.

(b).—*Passenger Trains.*—When detaching a helper engine from a passenger train after stop is made, angle cock on road engine will be closed. Engineer on helper engine will then reduce brake pipe pressure to 10 pounds with service application after which angle cock on rear of helper will be closed and air hose disconnected. There must be a thorough understanding between helper engineer and person disconnecting the hose in order that this person will wait until brake pipe pressure has been reduced to 10 pounds before hose is disconnected.

If the helper is detached in this manner there will be no pressure in hose and no liability of employes being injured by hose flying out of their hands.

When stop is made to detach helpers from rear of passenger trains Engineer will hold air brakes applied until helper is detached. After helper is detached, Flagman will then give signal to proceed.

17.—HELPER ENGINES—Concluded.

(c).—*Freight Trains.*—The following procedure will be used in cutting helper off freight trains at Altamont, Terra Alta, Blaser and West End.

The Conductor and trainman will signal Engineer with his arm extended horizontally in daytime and use light at night that he is turning the angle cock on the caboose. Conductor or trainman will then pull the cut lever and give the Engineer on the helper a cut-off sign by use of his hand in the daytime and a light at night. Helper Engineer receiving this signal will immediately reduce throttle gradually until helper is separated from caboose. When helper is attached to rear of freight train at Hardman, with instructions to help through to Terra Alta, good judgment must be exercised by Helper Engineer in reducing throttle before descending Cheat River Grade. When helper is attached to rear of train descending Cheat River Grade, throttle must not be above No. 1 throttle position.

(d).—*Limiting Block.*—Following diesel units when used in helper service must be equipped with limiting blocks: 1826-1827, 1837-1840, 6400-6599, 6600-6618, 7400-7499.

(e).—*M&K Jct.*—Following units when used in helper service at M&K Jct. must be equipped with limiting blocks: 4467-4636, 4644-4654.

(f).—Engineers will see that locomotives requiring limiting blocks are so equipped and blocks in place.

18.—DISPATCHING MAIL FROM TRAINS.

Engineers of trains handling U.S. Mail will sound one long blast of engine whistle approaching mail cranes. Care must be exercised when throwing mail and newspapers from moving trains.

20.—WHISTLE SIGNALS.

(a).—*Recalling Flagman.*—Rules 14(d) and 14(e) are supplemented to require the use of the following engine whistle or horn signals to recall flagman when standing in passing siding.

From West.....1 (one) short, 4 long  
From East.....1 (one) short, 5 long

21.—HIGHWAY AND STREET CROSSINGS.

(a).—In addition to complying with Rule 109, trains and engines will *Stop* before moving over crossing designated below.

SUBDIVISION	LOCATION	HIGHWAY OR STREET
South Branch	West Romney	Route 50

21.—Concluded.

(b).—Movement over the highway or street crossings designated below will be made in accordance with Rule 109(A).

SUBDIVISION	LOCATION	HIGHWAY OR STREET
East End	Reedson	Crossing No. 703
	Duffields	Crossing No. 704
	Shenandoah Jct.	Crossing No. 705
	Blairton	Crossing No. 713
West End	Keyser	Crossing No. 815
	Piedmont	Crossing No. 816
	Oakland	Crossing No. 827
	Rinard	Crossing No. 833

(c).—In addition to complying with Rule 109(A) the movement of trains and engines will be governed as follows:

LOCATION AND STREET	INSTRUCTIONS
<i>Martinsburg:</i> Burk Street	Movement over Burk Street Crossing No. 751, Frog Hollow Branch, must be preceded by a flagman.
<i>Paw Paw:</i> State Route No. 51	Movement over Route No. 51 crossing will be protected by a member of the crew.
<i>Piedmont:</i> Street Crossing No. 816	If necessary to handle retainers, Eastward trains on No. 1 or No. 2 tracks will stop west of overhead bridge west of Piedmont to keep from operating automatic gates and flashing lights at Piedmont crossing.

22.—MISCELLANEOUS.

(a).—Employees are prohibited from riding or walking on roofs of any moving cars.

(b).—Employees are prohibited from riding foot-boards of engines.

(c).—HOLIDAYS:—New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

(d).—Use of privately owned and licensed citizens hand radios for operating purposes is forbidden.

(e).—*Temporary Speed Signs.*—Temporary speed restrictions shall be covered by Train Order or General Order and designated by portable signs, Rule 298, Figure A, to be placed on both sides of the restriction sufficient distance to permit reduction from maximum authorized speed to the reduced speed specified in Train Order or General Order, Rule 298-A Modified.

(f).—Freight trains will be cut while standing in front of passenger station when passenger train is due on opposite track to receive or discharge passengers.

23.—ACCIDENTS.

When physically able to do so, employes sustaining injury, no matter how minor, will report it to supervisor before leaving company premises.

The supervisor must arrange prompt first-aid for the injured; then, as soon as possible, place him under the care of a Company's Surgeon. He must also report the injury promptly on the prescribed forms however minor it may appear.

In case of fatal accident on line of road, the nearest state or local police should be promptly notified. If such police cannot be promptly contacted and brought to the scene within a short time, train will proceed without further delay, a member of the crew or other agent of the Company being left at the scene to notify the police and make sure that the body is placed in the hands of the proper authority.

24.—MOVEMENT OF MofW CARS.

Motor Car Rules governing use of High Railers, Rail Detector Cars, Motor, Push, and Trailer Cars, Velocipedes, and other M of W equipment in effect February 1, 1967. These rules supersede all rules or special instructions not consistent therewith.

TRACK SECTION BETWEEN	AUTHORITY FOR MOVEMENT
Cumberland— Between: William Street and Viaduct Jct.	Verbal permission of the Operator-Switch Tender at Baltimore Street.

In compliance with Motor Car Rule 4(c), written authority of the Train Dispatcher is required for movement of motor cars on main track through and within yard limits, but permission of Yardmaster is not required. Car Operator is fully protected against all train or engine movements. Motor Car Rule 4(c) modified.

*South Branch Subdivision.*—Following train and engine movements may be permitted to follow a heavy car when properly listed on "Authority For Car Movement." Crews of following trains will be instructed by train order to sound whistle frequently and look out for track car ahead. Motor Car Rules 4(e) and 4(h) modified.



## MEDICAL DEPARTMENT

**I. Kaplan, M. D., Medical and Surgical Director**

### COMPANY'S SURGEONS

Brunswick, Md.	Dr. Charles E. Pruitt Dr. C. T. Byron Kao
Martinsburg, W. Va.	Dr. Geo. O. Martin Dr. Max O. Oates Dr. E. A. Zepp
Cumberland, Md.	Dr. R. J. Williams Dr. Wm. F. Williams Dr. Donald B. Grove Dr. L. Brings Dr. Leo H. Ley, Jr. Dr. Thomas F. Lewis Dr. Lesley E. Daugherty, Oculist Dr. David H. Miller, Oculist Dr. Arthur S. Bauer, Aurist
Keyser, W. Va.	Dr. Theodore C. Giffin Dr. Phillip G. Staggers Dr. Paul T. Healy Dr. Robert W. McCoy, Jr.
Piedmont, W. Va.	Dr. James H. Wolverton, Jr.
Oakland, Md.	Dr. E. Irving Baumgartner
Terra Alta, W. Va.	Dr. Chas. E. Smith
Rowlesburg, W. Va.	Dr. Jerome C. Arnett
Grafton, W. Va.	Dr. Wallace B. Murphy
Kingwood, W. Va.	Dr. James V. Gainer Jr.
Morgantown, W. Va.	Dr. G. R. Maxwell Dr. E. F. Heiskell, Jr. Dr. John H. Trotter, Oculist

### HOSPITALS

Martinsburg, W. Va.	King's Daughters and City Hospitals
Cumberland, Md.	Sacred Heart and Memorial Hospitals
Keyser, W. Va.	Potomac Valley Hospital
Oakland, Md.	Garrett County Memorial Hospital
Kingwood, W. Va.	Kerchival Clinic Hospital Preston Memorial Hospital
Morgantown, W. Va.	Vincent Pillotti Hospital Monongalia General Hospital

## FIRST AID CLINICS

Cumberland, Md.	Medical Examiner's Office.
Grafton, W. Va.	Medical Examiner's Office.

### EXAMINING POINTS AND HOURS

Brunswick.	Second and fourth Thursday each month, 9:30 A.M. to 12:00 Noon and 1:00 P.M. to 4:00 P.M.
Martinsburg.	By appointment only.
Cumberland.	Daily except Saturday and Sunday, 9:00 A.M. to 12:00 Noon and 1:00 P.M. to 4:00 P.M.
Keyser.	By appointment only.
Rowlesburg.	By appointment.
Grafton.	Wednesday and Thursday, 9:00 A.M. to 4:00 P.M.

### MEDICAL EXAMINERS' TERRITORIES

Weverton to Terra Alta, both exclusive, including Shenandoah and South Branch Subdivisions.	Dr. J. A. Ragione, Cumberland, Md.
Terra Alta to Grafton, including M&K Subdivision.	Dr. Robert McCune, Jr., Grafton, W. Va

### INSTRUCTIONS COVERING MEDICAL SERVICES

1. Employees seriously injured on duty or passengers, whose injuries require medical or surgical aid, should be promptly taken to the nearest listed Company's Surgeon or hospital emergency room, except in extreme emergency, when they should be transported to the closest medical facility.

Workers with minor injuries sustained on duty should be treated at the listed First Aid Clinics. Where these services are not readily available, such cases should be referred to the nearest listed Company's Surgeon or hospital emergency room.

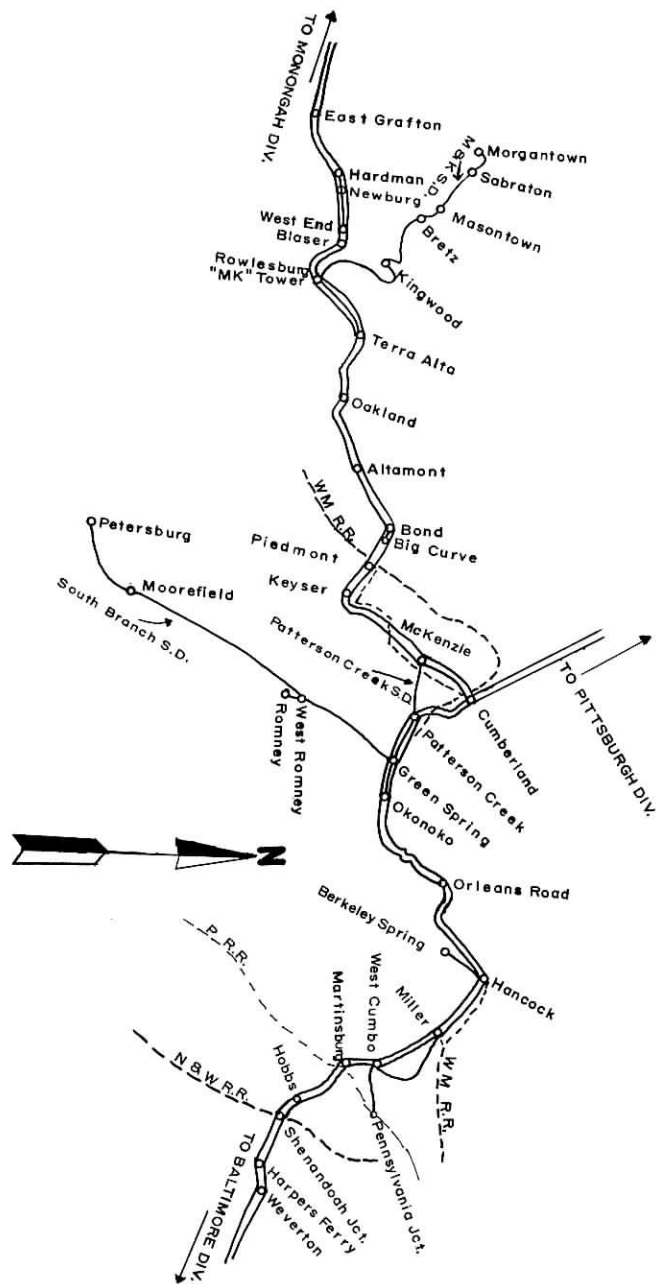
2. Depending on severity of injury, the officer in charge will use discretion as to proper conveyance for removal of injured employees. Municipal or private ambulances, taxicabs, personal or Company's vehicles may be used for this purpose, and the Company may be billed for the service.
3. When a passenger becomes ill on a train and requests medical attention, any local physician (Company's Surgeon or otherwise) may be called. If the passenger cannot or will not pay physician called, we shall pay for the first call, but both the patient and the physician should be told that all subsequent treatment shall be at the patient's expense.

**Notice of disablement or death of a Relief Department member should be reported promptly.**

# CUMBERLAND DIVISION

SPEED TABLE

Time per Mile Min. Sec.	Miles per Hour	Time per Mile Min. Sec.	Miles per Hour	Time per Mile Min. Sec.	Miles per Hour	Time per Mile Min. Sec.	Miles per Hour
0 46	78.26	1 21	44.44	1 56	31.03	2 31	23.84
0 47	76.59	1 22	43.90	1 57	30.77	2 32	23.68
0 48	75.00	1 23	43.37	1 58	30.51	2 33	23.53
0 49	73.47	1 24	42.86	1 59	30.25	2 34	23.38
0 50	72.00	1 25	42.35	2 00	30.00	2 35	23.23
0 51	70.59	1 26	41.86	2 01	29.75	2 36	23.08
0 52	69.23	1 27	41.38	2 02	29.51	2 37	22.93
0 53	67.92	1 28	40.91	2 03	29.27	2 38	22.78
0 54	66.66	1 29	40.45	2 04	29.03	2 39	22.64
0 55	65.45	1 30	40.00	2 05	28.80	2 40	22.50
0 56	64.28	1 31	39.56	2 06	28.57	2 41	22.36
0 57	63.16	1 32	39.13	2 07	28.34	2 42	22.22
0 58	62.07	1 33	38.71	2 08	28.12	2 43	22.08
0 59	61.02	1 34	38.29	2 09	27.91	2 44	21.95
1 00	60.00	1 35	37.89	2 10	27.69	2 45	21.82
1 01	59.02	1 36	37.50	2 11	27.48	2 46	21.69
1 02	58.06	1 37	37.11	2 12	27.27	2 47	21.56
1 03	57.14	1 38	36.73	2 13	27.07	2 48	21.43
1 04	56.25	1 39	36.36	2 14	26.87	2 49	21.30
1 05	55.38	1 40	36.00	2 15	26.66	2 50	21.18
1 06	54.54	1 41	35.64	2 16	26.47	2 51	21.05
1 07	53.73	1 42	35.29	2 17	26.28	2 52	20.93
1 08	52.94	1 43	34.95	2 18	26.09	2 53	20.81
1 09	52.18	1 44	34.61	2 19	25.90	2 54	20.70
1 10	51.43	1 45	34.29	2 20	25.71	2 55	20.58
1 11	50.70	1 46	33.96	2 21	25.53	2 56	20.45
1 12	50.00	1 47	33.64	2 22	25.35	2 57	20.34
1 13	49.31	1 48	33.33	2 23	25.17	2 58	20.22
1 14	48.65	1 49	33.03	2 24	25.00	2 59	20.11
1 15	48.00	1 50	32.73	2 25	24.83	3 00	20.00
1 16	47.37	1 51	32.43	2 26	24.66	4 00	15.00
1 17	46.75	1 52	32.14	2 27	24.49	6 00	10.00
1 18	46.15	1 53	31.86	2 28	24.32	12 00	5.00
1 19	45.55	1 54	31.58	2 29	24.16		







# AVOID DAMAGE

## SWITCH CUSTOMERS CARS CAREFULLY

### JUDGING SPEED

Accurate judgment of coupling speed depends upon correct timing. An excellent way to get accurate timing without a watch is to count "one hundred and thirty-one, one hundred and thirty-two" and so on as the car passes a stationary point. With a little practice counting can be done at the rate of one a second.

Ability to closely estimate speed at time car strikes is extremely important because impact force builds up as the square of the speed. This means that impact delivered by a car coupled at 8 miles per hour is not four times that at 2 miles per hour, but 16 TIMES AS GREAT. Damage to freight or car can be avoided by always keeping coupling speed within the safe range—**NOT OVER 4 MILES PER HOUR—A BRISK WALK.**

### SPEED CARD

#### To Find Coupling Speed of 40 Foot and 50 Foot Car

Sight vertical end of car body on a fixed point and note the number of seconds it takes car to pass. Speed in miles per hour is shown opposite.

Damage as a result of Rough Handling makes up a large part of the claim bill for Loss and Damage to Freight. From the Railroad standpoint it is the major item in the expense. We all know that Rough Handling can be reduced, often eliminated. It is hoped that this card will be helpful in your efforts to prevent Rough Handling.

Switch Crews must function as a team. Clear signals properly given are mighty important; talk it over — prevent Rough Handling — it can be done.

	40 Foot Car	50 Foot Car
Seconds	Miles Per Hour	Miles Per Hour
1	28.	35.
2	14.	17.5
3	9.3	11.6
4	7.	8.7
5	5.6	7.
6	4.7	5.9
7	4.	5.
8	3.5	4.4
9	3.1	3.9
10	2.8	3.5
11	2.5	3.1
12	2.3	2.9
13	2.15	2.7
14	2.	2.5