

### COMPANY SURGEONS.

\*Dr. Roscoe C. Webb, Chief Surgeon ..... Minneapolis, Minn.  
\*Dr. Ernest R. Anderson,  
Assistant Chief Surgeon ..... Minneapolis, Minn.  
\*Dr. H. J. Knott ..... Seattle, Wash.  
\*Dr. F. K. Remington ..... Seattle, Wash.  
\*Dr. George R. Kingston ..... Wenatchee, Wash.  
\*Dr. Chas. E. Conner ..... Cashmere, Wash.  
\*Dr. L. S. Trask ..... Everett, Wash.  
\*Dr. Ross Wright ..... Tacoma, Wash.  
\*Dr. G. H. Clement ..... Vancouver, B. C.  
\*Dr. Thos. B. Dodgson, ..... East Stanwood, Wash.  
\*Dr. G. H. Stollwerck ..... Burlington, Wash.  
\*Dr. W. D. Kirkpatrick ..... Bellingham, Wash.  
Dr. Minard Allison ..... Monroe, Wash.  
Dr. Roy F. West ..... Seattle, Wash.  
Dr. Albert Ehrlich ..... Tacoma, Wash.  
Dr. Henry Bell ..... Centralia, Wash.  
Dr. Henry M. Wiswall ..... Vancouver, Wash.  
Dr. Ralph M. Dodson ..... Portland, Ore.  
Dr. Austin Shaw ..... Anacortes, Wash.

\*Designates also Examining Surgeons.

### OPHTHALMIC SURGEONS. (Eye Doctors)

Dr. H. R. Secoy ..... Everett, Wash.  
Dr. F. F. Ackerman ..... Seattle, Wash.

G. E. Wellein, Chief Dispatcher.  
R. N. Whitman, Trainmaster.  
E. T. Carter, Trainmaster.  
L. E. Barnea, Trainmaster.  
E. J. Gardner, Trainmaster.

# GREAT NORTHERN RAILWAY COMPANY

## CASCADE DIVISION

# TIME TABLE 61

Effective 12:01 A. M. Pacific Time

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Sunday, September 27, 1953

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I. E. CLARY, Superintendent.  
T. A. JERROW, General Manager.  
A. W. CAMPBELL, General Superintendent Transportation.

2 WESTWARD

FIRST SUBDIVISION

Station Numbers	Car Capacity		SECOND CLASS		FIRST CLASS							Distance from Wenatchee	Time Table No. 61		Telegraph Calls			
	Siding	Other Tracks	403 C. M. St. P. & P. 501	361	359	357	355	27	5	1 Streamliner	3		Effective September 27, 1953					
													Daily Ex. Mon.	Daily		Daily	Daily	Daily
1648	Yard	1085							L 11.25 <sup>28</sup> Pm	L 12.50 <sup>6</sup> Pm	L 3.40 <sup>28</sup> Am	L 2.10 <sup>4</sup> Am	0.00	..... WENATCHEE.....	WC			
1655	70	47							11.40	f 1.05	3.50	2.25	7.88	..... MONITOR.....	MR			
1659	118	218							11.46	s 1.15	3.55	2.35	11.00	..... CASHMERE.....	OM			
1664	64	35							11.53	s 1.23	4.02	2.52 <sup>28</sup>	15.68	..... DRYDEN.....	DN			
1667	0	286							11.59	s 1.29	4.07	3.00	18.77	..... PESHASTIN.....	PN			
1671	119	18							12.08 <sup>28</sup> Am	s 1.35	4.12	3.08	22.08	..... LEAVENWORTH.....	CH			
1676	28	0							12.22	f 1.46	4.20	3.20	27.90	..... CHUMSTICK.....				
1684	109	28							12.42	f 2.00	4.34	3.33	35.60	..... WINTON.....	WI			
1691	185	41							12.54 <sup>4</sup>	f 2.10	4.42	3.45	42.18	..... MERRITT.....				
1699	104	11							1.20 <sup>4</sup>	f 2.25	4.56	4.05	49.18	..... BERNE.....	BR			
1716	135	16							1.38 <sup>28</sup>	s 2.45	5.14	4.25	58.16	..... SCENIC.....	MA			
1723	60	10							1.58	f 3.03	5.28	4.43	66.00	..... TONGA.....				
1728	E-191 W-99	271							s 2.20	s 3.21	s 5.46	s 5.05	70.96	..... SKYKOMISH.....	KY			
1732	59	68							2.30	f 3.26	5.51	5.12	74.77	..... GROTTO.....	GO			
1736	185	19							2.37	f 3.32	5.56	5.18	78.65	..... BARING.....				
1742	31	14							2.52	s 3.44	6.07	5.31	85.24	..... INDEX.....				
1747	106	80							3.02	f 3.52	6.16	5.40	90.14	..... REITER.....				
1751	149	Yard							3.09	s 3.59	6.22	5.47	94.51	..... GOLD BAR.....	GB			
1757	59	41							3.17	s 4.18 <sup>2</sup>	6.28	5.53	99.91	..... SULTAN.....				
1764	189	127							L 12.01 <sup>28</sup> Pm	s 4.32	6.36	6.03	107.37	..... MONROE.....	MO			
1771	187	186							12.15	s 4.42	6.43	6.11	114.37	..... SNOHOMISH.....	SH			
1777		112							A 12.30 <sup>28</sup> Pm				115.01	..... SNOHOMISH JCT.....				
	Contin- uous												119.94	..... N. P. RY. JCT.....				
		104											120.19	..... LOWELL JCT.....				
													120.20	..... LOWELL.....	W			
1779	0												121.81	..... PACIFIC AVENUE.....	D			
1780		4							L 9.18 <sup>28</sup> Pm	L 8.32 <sup>28</sup> Pm	L 3.32 <sup>28</sup> Pm	L 11.14 <sup>28</sup> Am	122.86	..... EVERETT.....	JN			
1784	0	75							9.23	f 8.37	3.37	11.19	123.67	..... EVERETT JCT.....				
													127.42	..... MUKILTEO.....				
1798									9.33	f 8.49	3.47	11.29	134.56	..... MEADOWDALE.....				
1795	0	107							9.38	f 8.55	3.52	11.34	138.27	..... EDMONDS.....	DR			
1796	0	79							9.43	f 9.01	3.57	11.39	141.37	..... RICHMOND BEACH.....	R			
1807	0	190							9.53	f 9.15	4.07	11.49	149.23	..... BALLARD.....				
1808	Yard	1195							9.56	f 9.19	4.10	11.52	150.99	..... INTERBAY.....	RB			
													151.97	..... N. P. RY. CROSSING.....				
													154.27	..... NORTH PORTAL.....				
													155.57	..... SOUTH PORTAL.....				
1813	Yard	589							A 10.10 <sup>28</sup> Pm	A 9.35 <sup>28</sup> Pm	A 4.25 <sup>28</sup> Pm	A 12.05 <sup>28</sup> Pm	A 5.00 <sup>28</sup> Am	A 6.00 <sup>28</sup> Pm	A 8.00 <sup>28</sup> Am	A 7.30 <sup>28</sup> Am	155.67	
									.29 26.10	.52 36.92	1.03 30.47	.53 36.23	.51 35.68	5.35 28.18	5.10 30.13	4.20 35.92	5.20 29.12	155.67

AUTOMATIC BLOCK SIGNALS

DOUBLE TRACK

DOUBLE TRACK

BETWEEN SOUTH PORTAL AND NORTH PORTAL INTERLOCKING RULES AND KING STREET PASSENGER STATION TUNNEL RULES GOVERN

Westward trains are superior to eastward trains of the same class, except as follows:  
 No. 1 is superior to all trains. No. 2 is superior to all trains, except No. 1.  
 SEE ADDITIONAL SPECIAL INSTRUCTIONS PAGES 7 THROUGH 19.

Conditional flag stops—  
 Nos. 3 and 4 stop at any station between Wenatchee and Seattle, to pick up or discharge revenue passengers from or to points Great Falls and east where Nos. 3 and 4 are scheduled to stop. Nos. 5 and 6 stop on flag at Miller River, Startup and Halford.

Time Over Subdivision  
 Average Speed Per Hour

FIRST SUBDIVISION

EASTWARD 3

Time Table No. 61

Effective September 27, 1953

STATIONS	Distance from Seattle	FIRST CLASS							SECOND CLASS			SIGNS	
		356	358	6	360	2 Streamliner	362	4	28	406 C. M. St. P. & P. 592			
		Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily Ex. Mon.			
WENATCHEE..... 7.38	155.67			A 1.20 <sup>5</sup> pm		A 7.10 <sup>1</sup> pm		A 2.40 <sup>3</sup> am	A 3.25 <sup>1</sup> am				RKDNW XPBJ
MONITOR..... 8.62	148.29			f 1.05		6.59		2.25	3.07				DP
CASHMERE..... 4.65	144.67			s 12.57		6.54		2.17	3.00				DNWXP
DRYDEN..... 8.12	140.02			s 12.48		6.47		2.11	2.52 <sup>3</sup>				DP
PEHASTIN.....	136.90			s 12.41		6.42		2.06	2.46				DP
LEAVENWORTH..... 8.28	133.62			s 12.35		6.37		2.01	2.40				DNP
CHUMSTICK..... 5.85	127.77			f 12.26		6.30		1.53	2.31				F
WINTON..... 7.70	120.07			f 12.16		6.18		1.43	2.21				DP
MERRITT..... 6.55	118.52			f 12.07 <sup>pm</sup>		6.09		1.35	2.13				WYPN
BERNE..... 7.03	106.49			f 11.52		5.55		1.20 <sup>27</sup>	1.58				NPT
SCENIC..... 8.98	97.51			s 11.32		5.36		1.00	1.38 <sup>27</sup>				IDNP
TONGA..... 7.84	89.67			s 11.14		5.18		12.40	1.18				F
SKYKOMISH..... 4.96	84.71			s 11.03		5.07		12.30	1.08				RKDNW BOXYP
GROTTO..... 8.81	80.90			f 10.44		4.51		12.18	12.55				DP
BARING..... 3.88	77.02			f 10.38		4.46		12.13	12.50				WP
INDEX..... 6.59	70.43			s 10.26		4.35		12.02 <sup>am</sup>	12.39				F
REITER..... 4.90	65.53			f 10.17		4.28		11.54	12.31				F
GOLD BAR..... 4.87	61.16			s 10.10		4.23		11.47	12.24				NDWYP
SULTAN..... 5.40	55.76			s 10.01		4.18		11.41	12.18				F
MONROE..... 7.46	48.80			s 9.51		4.11		11.33	12.10	A 1.00 <sup>am</sup>			DNWPRB
SNOMISH..... 7.00	41.80			s 9.37		4.03		11.25	12.01 <sup>am</sup>	12.45			DNPR
SNOMISH JCT..... 0.64	40.66												VJ
N. P. RY. JCT..... 4.93	35.73												VRJ
LOWELL JCT..... 0.16	35.57									L 12.30 <sup>am</sup>			RJV
LOWELL..... 0.09	35.48			9.29		3.57		11.19	11.54				DNXYF
PACIFIC AVENUE..... 1.62	33.86			9.27		3.55		11.16	11.52				DIXP
EVERETT..... 1.08	32.81			s 9.25		3.53		11.14	11.50				DNXPI
EVERETT JCT..... .81	32.00	A 8.35 <sup>am</sup>	A 8.55 <sup>am</sup>	9.19	A 2.47 <sup>pm</sup>	3.49	A 6.50 <sup>pm</sup>	11.04	11.34				IXPJ
MUKILTEO..... 3.75	28.25	8.30	f 8.49	9.14	2.42	3.44	6.45	10.59	11.29				F
MEADOWDALE..... 7.14	21.11	8.20	f 8.38	9.05	2.33	3.35	6.35	10.50	11.20				F
EDMONDS..... 3.71	17.40	8.15	s 8.33	f 9.00	2.29	3.30	6.30	10.45	11.15				DWP
RICHMOND BEACH..... 8.10	14.80	8.10	f 8.26	8.55	2.25	3.25	6.25	10.40	11.10				DP
BALLARD..... 7.86	6.44	8.00	8.16	8.45	2.15	3.15	6.15	10.30	11.00				XP
INTERBAY..... 1.76	4.68	7.57	s 8.13	8.42	2.12	3.12	6.12	10.27	10.57				RKDNW ZBOXPVT
N. P. RY. CROSSING..... 0.98	3.70	7.55	8.10	8.40	2.10	3.10	6.10	10.25	10.55				I
NORTH PORTAL..... 2.80	1.40												I
SOUTH PORTAL..... 0.10													
SEATTLE..... 0.00		L 7.45 <sup>am</sup>	L 8.00 <sup>am</sup>	L 8.30 <sup>am</sup>	L 2.00 <sup>pm</sup>	L 3.00 <sup>pm</sup>	L 6.00 <sup>pm</sup>	L 10.15 <sup>pm</sup>	L 10.45 <sup>pm</sup>				RKDNXP VZB
Time Over Subdivision		.50	.55	4.50	.47	4.10	.50	4.25	4.40	.30			
Average Speed Per Hour		38.40	34.80	32.20	40.85	37.36	38.40	35.28	33.21	25.46			

BETWEEN NORTH PORTAL AND SOUTH PORTAL INTERLOCKING RULES AND KING STREET PASSENGER STATION TUNNEL RULES GOVERN.

DOUBLE TRACK  
 AUTOMATIC BLOCK SIGNALS  
 DOUBLE TRACK  
 DOUBLE TRACK

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## 4 SOUTHWARD

## SECOND SUBDIVISION

Station Numbers	Car Capacity		THIRD CLASS		FIRST CLASS						Distance from Vancouver	Time Table No. 61		Telegraph Calls
	Siding	Other Tracks	735 C. N. 898 Tue., Fri.	103 C. N. 4 Daily	101 C. N. 2 Daily	361 Streamliner Daily	359 Daily	357 Streamliner Daily	355 Streamliner Daily	Effective September 27, 1953				
										STATIONS				
CL 125	Yard	400				L 6.15Pm	L 4.10Pm	L 12.30Pm	L 8.10Am	0.00	.....VANCOUVER.....	VN		
			L 9.02Am	L 8.32Pm	L 7.32Pm					0.71	.....VANCOUVER JCT.....			
CL 123			9.04	8.35	7.35					1.25	.....C. N. RY. JCT.....			
			9.09	8.38	7.38	6.18	4.13	12.33	8.13	2.78	.....STILL CREEK.....			
										4.57	.....B. C. E. RY. CROSSING.....			
CL 115			9.25	8.50	7.50	6.26	4.21	12.42	102 8.21	9.09	.....ENDOT.....			
CL 112	Yard	169	9.30	8.54	7.54	6.29	4.24	12.45	8.24	11.70	.....SAPPERTON.....			
CL 107	0	60	A 9.39Am	A 9.05Pm	A 8.05Pm	s 6.35	s 4.29	s 12.50	s 8.30	13.06	.....NEW WESTMINSTER.....	MN		
						6.41	4.35	12.56	8.36	13.54	.....FRASER RIVER JCT.....			
CL 101	48	0				6.47	4.41	1.02	8.43	18.78	.....TOWNSEND.....			
CL 96	46	47				6.53	4.56	1.10	8.49	24.03	.....COLEBROOK.....			
CL 92	0	8				6.58	5.01	1.15	8.54	27.72	.....CRESCENT BEACH.....			
CL 87	57	10				s 7.05	s 5.18	s 1.22	s 9.02	32.75	.....WHITE ROCK.....	WR		
										35.43	.....INTERNATIONAL BORDER.....			
CL 84	50	143				s 7.14	s 5.35	s 1.30	s 9.17	35.88	.....BLAINE.....	BN		
CL 77	0	55				7.22	5.47	1.38	9.25	43.46	.....CUSTER.....			
CL 71	60	118				7.28	5.57	1.45	9.32	49.04	.....FERNDALE.....	FD		
CL 62	52	539				s 7.40	s 6.15	s 1.57	s 9.45	58.02	.....BELLINGHAM.....	HM		
										58.99	.....C.M.St.P.&P.R.R.CROS'GS.....			
										59.81	.....N. P. RY. CROSSING.....			
CL 60	91	101				7.45	t 6.21	2.02	368 9.54	60.95	.....SOUTH BELLINGHAM.....			
CL 50	67	0				8.06	t 6.39	2.17	10.09	70.88	.....SAMISH.....			
CL 46	98	8				8.11	t 6.45	2.22	10.14	74.63	.....BOW.....			
CL 39	51	268				8.20	s 6.59	2.31	10.21	82.01	.....BURLINGTON.....	BU		
CL 35	104	131				s 8.28	s 7.15	s 2.39	363 10.28	85.98	.....MT. VERNON.....	NR		
CL 30	28	17				8.33	t 7.29	2.44	10.33	91.81	.....FIR.....			
CL 28	115	50				8.40	s 7.41	2.51	10.38	98.41	.....STANWOOD.....	B		
CL 17	11	6				8.46	t 7.50	2.57	10.43	103.98	.....SILVANA.....			
CL 13	50	15				8.50	t 7.56	3.08	10.47	107.93	.....ENGLISH.....			
						8.54	8.01	3.12	10.51	111.70	.....KRUSE JCT.....			
CL 6	50	70				8.59	s 8.09	3.15	10.55	115.11	.....MARYSVILLE.....	MS		
CL 3						9.05	8.16	3.21	11.01	117.71	.....DELTA JCT.....	WY		
										117.78	.....N. P. RY. CROSSING.....			
	75	35				9.08	8.19	3.24	11.04	118.83	.....LONG SIDING.....			
1779	Yard	277				s 9.16	s 8.30	s 3.30	s 11.12	121.57	.....EVERETT.....	JN		
1780	0	4				A 9.18Pm	A 8.32Pm	A 3.32Pm	A 11.14Am	122.38	.....EVERETT JCT.....			
			.37 20.02	.33 22.45	.33 22.45	3.03 40.12	4.22 28.02	3.02 40.34	3.04 39.98		Time Over Subdivision Average Speed Per Hour			

Southward trains are superior to Northward trains of the same class except as follows:

Nos. 355, 357 and 361 are superior to all trains. Nos. 356, 360 and 362 are superior to all trains except Nos. 355, 357 and 361.  
Conditional flag stops—Nos. 356 and 359 stop on flag at Ocean Park.

SEE ADDITIONAL SPECIAL INSTRUCTIONS PAGES 7 THROUGH 19.

SECOND SUBDIVISION

NORTHWARD 5

Time Table No. 61 Effective September 27, 1953		FIRST CLASS						THIRD CLASS		SIGNS
STATIONS	Distance from Everett Junction	104	102	356	358	360	362	736		
		C. N. 3	C. N. 1	Streamliner		Streamliner	Streamliner	C. N. 397		
		Daily	Daily	Daily	Daily	Daily	Daily	Wed., Sat.		
.....VANCOUVER.....	122.88			A 11.40Am	A 2.00Pm	A 5.40Pm	A 9.55Pm			RKDNWV BYXOPZT
.....VANCOUVER JCT.....	121.67	A 6.55Am	A 8.40Am					A 3.25Pm		XJV
.....C. N. RY. JCT.....	121.18	6.52	8.36					3.22		XVJ
.....STILL CREEK.....	119.65	6.48	8.32	11.31	1.50	5.34	9.50	3.18		XP
.....B. C. E. RY. CROSSING.....	117.81									I
.....ENDOT.....	112.69	6.35	<sup>355</sup> 8.18	11.20	1.39	5.23	9.41	3.01		P
.....SAPPERTON.....	110.68	6.29	8.14	11.17	1.36	5.20	9.38	2.56		ZYXPV
.....NEW WESTMINSTER.....	109.32	L 6.25Am	L 8.08Am	s 11.14	s 1.33	s 5.18	s 9.36	L 2.50Pm		DNRIXPV
.....FRASER RIVER JCT.....	108.84			11.06	1.24	5.10	9.29			IJV
.....TOWNSEND.....	108.50			10.59	1.18	5.03	9.22			P
.....COLEBROOK.....	98.85			10.53	<sup>357</sup> 1.10	<sup>359</sup> 4.56	9.16			P
.....CRESCENT BEACH.....	94.66			10.47	s 12.52	4.51	9.11			P
.....WHITE ROCK.....	89.63			s 10.40	s 12.45	s 4.45	s 9.04			DNXP
INTERNATIONAL BORDER	88.95									
.....BLAINE.....	86.50			s 10.26	s 12.20	s 4.35	s 8.56			DNXP
.....CUSTER.....	78.92			10.17	s 12.04Pm	4.26	8.46			P
.....FERNDALE.....	73.84			10.11	s 11.54	4.20	8.40			DP VZ
.....BELLINGHAM.....	64.36			s 10.01	s 11.37	s 4.10	s 8.30			KDNXPWPB T
.....C.M.St.P.&P.R.R.CROS'GS.....	63.39									M
.....N. P. RY. CROSSING.....	62.57									M
.....SOUTH BELLINGHAM.....	61.43			<sup>355</sup> 9.54	f 11.14	4.03	8.22			XP
.....SAMISH.....	51.55			9.39	f 10.58	3.47	<sup>361</sup> 8.06			P
.....BOW.....	47.75			9.35	f 10.52	3.43	7.55			P
.....BURLINGTON.....	40.37			9.27	s 10.40	3.36	7.44			JRDNKZ BOWYXPM
.....MT. VERNON.....	36.40			s 9.22	s <sup>355</sup> 10.28	s 3.32	s 7.38			DNXP
.....FIR.....	31.07			9.14	f 9.57	3.24	<sup>359</sup> 7.29			P
.....STANWOOD.....	23.97			9.08	s 9.48	3.18	7.23			DNP
.....SILVANA.....	18.40			9.03	s 9.39	3.13	7.18			P
.....ENGLISH.....	14.45			8.59	f 9.34	<sup>357</sup> 3.08	7.14			P
.....KRUSE JCT.....	10.68			8.55	9.29	3.05	7.10			PJV
.....MARYSVILLE.....	7.27			8.52	s 9.24	3.02	7.07			DP
.....DELTA JCT.....	4.67			8.46	9.16	2.56	7.01			JDNIXPV
.....N. P. RY. CROSSING.....	4.60									IM
.....LONG SIDING.....	3.55			8.44	9.14	2.54	6.59			P
.....EVERETT.....	0.81			s 8.40	s 9.10	s 2.50	s 6.55			DNPX
.....EVERETT JCT.....	0.00			L 8.35Am	L 8.55Am	L 2.47Pm	L 6.50Pm			IXPJ
Time Over Subdivision		.30	.32	3.05	5.05	2.53	3.05	.35		
Average Speed Per Hour		24.70	23.15	39.68	24.07	42.44	39.68	21.17		

Southward trains are superior to Northward trains of the same class except as follows:

Nos. 355, 357 and 361 are superior to all trains. Nos. 356, 360 and 362 are superior to all trains except Nos. 355, 357 and 361. Conditional flag stops—Nos. 358 and 359 stop on flag at Ocean Park.

SEE ADDITIONAL SPECIAL INSTRUCTIONS PAGES 7 THROUGH 19.

6 WESTWARD			THIRD SUBDIVISION					EASTWARD							
Station Numbers	Car Capacity		SECOND CLASS		Distance from Rockport	Time Table No. 61 Effective September 27, 1953	Telegraph Calls	Distance from Anacortes	SIGNS	SECOND CLASS					
	Siding	Other Tracks	275	277						278	276				
			Daily Ex. Sun.	Daily Ex. Sun.						Daily Ex. Sun.	Daily Ex. Sun.				
STATIONS															
CN53	Yard	69	L	10.30Am	0.00	.....ROCKPORT.....	RK	53.41	XWYVD	A	9.30Am				
CN44	85	188	s	1.30Pm	9.13	.....CONCRETE.....	BA	44.28	DX	s	8.30				
CN43	0	92	f	1.45	10.89	.....GRASSMERE.....	.....	43.02	X	f	6.45				
CN88	0	86	f	2.15	15.44	.....BIRDSVIEW.....	.....	37.97	.....	f	6.30				
CN83	0	89	f	2.35	20.67	.....HAMILTON.....	.....	32.74	W	f	6.10				
.....	.....	.....	s	2.36	21.27	.....HAMILTON JCT.....	H	32.14	RBV	s	6.07				
CN29	0	83	f	2.50	23.90	.....LYMAN.....	.....	29.51	.....	f	5.55				
CN23	0	5	f	3.05	29.85	.....COKEDALE.....	.....	24.06	.....	f	5.35				
CN20	32	53	f	3.30	32.47	.....SEDRO-WOLLEY.....	SW	20.94	DX	f	5.20				
.....	.....	.....	.....	.....	32.57	.....N. P. RY. CROSSING.....	.....	20.84	M	.....	.....				
CL89	Yard	258	L	6.00Am	A	3.45Pm	37.22	.....BURLINGTON.....	BU	16.19	MJRDNOZ PKWXYZ	L	5.00Am	A	4.50Pm
CN9	0	15	f	6.25	.....	.....	44.13	.....WHITNEY.....	.....	9.28	.....	f	4.23	.....	.....
.....	.....	.....	.....	6.35	.....	.....	47.29	.....WHITMARSH JCT.....	.....	6.12	RV	.....	4.16	.....	.....
CN6	0	9	f	6.37	.....	.....	47.80	.....WHITMARSH.....	WH	5.61	.....	.....	4.15	.....	.....
CN0	Yard	265	A	6.55Am	.....	.....	53.41	.....ANACORTES.....	AC	0.00	RDXBT	.....	L	4.00Pm	.....
.....	.....	.....	.....	.55	.....	.....	.....	Time Over Subdivision	.....	.....	.....	.....	4.30	.....	.50
.....	.....	.....	.....	17.66	.....	.....	.....	Average Speed Per Hour	.....	.....	.....	.....	8.37	.....	19.43

Westward trains are superior to eastward trains of the same class except No. 278 is superior to No. 277.

SEE ADDITIONAL SPECIAL INSTRUCTIONS PAGES 7 THROUGH 19.

ALL SUBDIVISIONS

1. INSTRUCTIONS GOVERNING THE OPERATION OF STREAMLINER TRAINS.

CLEARING OF STREAMLINERS.

The time of No. 1 must be cleared by westward first class trains not less than 5 minutes before No. 1 is due to leave the last station where time is shown, and by other westward trains not less than 10 minutes before No. 1 is due to leave the last station where time is shown.

The time of No. 1 must be cleared by eastward first class trains, except No. 2, not less than 10 minutes at all stations, and by other eastward trains not less than 15 minutes.

The time of No. 2 must be cleared by eastward first class trains not less than 5 minutes before No. 2 is due to leave the last station where time is shown, and by other eastward trains not less than 10 minutes before No. 2 is due to leave the last station where time is shown.

The time of No. 2 must be cleared by westward first class trains, except No. 1, not less than 10 minutes at all stations, and by other westward trains not less than 15 minutes.

Within yard limits, yard engines and light engine movements must clear the main track not less than 10 minutes before Nos. 1 and 2 are due to leave last station where time is shown.

MAXIMUM PERMISSIBLE SPEED OF STREAMLINERS.

Streamliner trains will be so designated in column with schedule number.

Maximum permissible speed of Streamliner trains will be designated by distinctive reflectorized roadway signs set in an upward angle of 45 degrees as prescribed in Item 2(b)—SPEED RESTRICTIONS GENERAL—ALL SUBDIVISIONS.

2. SPEED RESTRICTIONS GENERAL.

ZONE TERRITORIES AND MAXIMUM PERMISSIBLE SPEED OF PASSENGER TRAINS, INCLUDING STREAMLINERS, OPERATING VIA ROUTES INDICATED BELOW:

Zones	Mileposts	MPH
King Street Station to Bay St. ....	0- 1.9	20
Bay Street to south end Bridge 4 .....	1.9- 6.1	35
Bridge 4, Ballard .....	6.1- 6.4	20
E. end Bridge 4 to E. end Curve 335 .....	6.4- 8.8	50
E. end Curve 335 to E. end Curve 328 .....	8.8-11.7	55
E. end Curve 328 to W. end Curve 314 .....	11.7-16.7	60
W. end Curve 314 to City Limits—Edmonds .....	16.7-17.3	45
Through Edmonds .....	17.3-17.8	35
Edmonds to W. end Curve 304 .....	17.8-21.9	60
W. end Curve 304 to E. end Curve 300 .....	21.9-23.6	55
E. end Curve 300 to Everett Jct. ....	23.6-32.3	60

Between Everett Junction and Wenatchee

Zones	Mileposts	MPH
Everett Jct. to E. end Pacific Ave. Crossing .....	32.2-1782.8	20
Pacific Ave. Crossing to E. end Curve 270 .....	1782.8-1780.7	60
E. end Curve 270 to W. end Curve 267 .....	1780.7-1775.6	79
Curve 267, Snohomish .....	1775.6-1775.5	55
E. end Curve 267 to Monroe .....	1775.5-1768.3	79
Through Monroe .....	1768.3-1769.1	45
Monroe to W. end Curve 262 .....	1769.1-1765.6	60
W. end Curve 262 to E. end Curve 261 .....	1765.6-1765.2	55
E. end Curve 261 to Sultan .....	1765.2-1761.4	60
Through Sultan .....	1761.4-1760.6	50
Sultan to W. end Curve 254 .....	1760.6-1757.7	79
W. end Curve 254 to E. end Curve 252 .....	1757.7-1756.7	60
E. end Curve 252 to W. end Curve 251 .....	1756.7-1753.8	79
W. end Curve 251 to W. end Curve 233 .....	1753.8-1746.8	35
W. end Curve 233 to E. end Curve 232 .....	1746.8-1745.2	30
E. end Curve 232 to E. end Curve 218 .....	1745.2-1740.5	35
E. end Curve 218 to W. Switch Skykomish .....	1740.5-1732.5	50
Through Skykomish .....	1732.5-1731.2	20
E. Switch Skykomish to W. end Curve 201 .....	1731.2-1729.6	30
Curve 201 .....	1729.6-1729.4	15
E. end Curve 201 to E. end Curve 196 .....	1729.4-1727.9	20
E. end Curve 196 to E. end Curve 67— Merritt .....	1727.9-1693.2	30

E. end Curve 67 to E. Switch Winton .....	1693.2-1685.8	50
E. Switch Winton to W. end Curve 521— Peshastin .....	1685.8-1668.6	55
W. end Curve 521 to E. end Curve 519 .....	1668.6-1667.1	35
E. end Curve 519 to E. end Curve 512 .....	1667.1-1663.6	50
E. end Curve 512 to City Limits Cashmere .....	1663.6-1661.3	40
Through Cashmere .....	1661.3-1660.7	25
Cashmere to Wenatchee .....	1660.7-1650.3	45

(a) Where Automatic Block and Interlocking Rules and Signal Indications require movement at RESTRICTED SPEED, such movements must be made prepared to stop short of train, obstruction, or switch not properly lined and on the lookout for broken rail or anything that may require the speed of a train to be reduced; but not exceeding 15 MPH or as much slower as necessary; and where conditions require the movement must be controlled so stop can be made in time to avoid accident.

(b) Maximum permissible speed of passenger, freight and mixed trains, including Streamliners, will be designated by distinctive reflectorized roadway signs set in an upward angle of 45 degrees.

Except as directly affected by speed restrictions prescribed in Items 1 and 2—ALL SUBDIVISIONS—and other speed restrictions covered by Item 2 under individual Subdivisions, the 45 degree signs designate zone speed territories and the numerals thereon indicate in miles per hour the maximum permissible speed which will govern until the next zone sign is reached.

When the movement is from a higher to a lower speed zone, the zone sign is located approximately one mile from the point where the lower speed becomes effective. At the end of this one mile is located a reflectorized angular Restricting Sign, yellow background with black stripes, indicating the point where lower speed becomes effective. Lower speed to govern until entire train passes next zone sign.

When the movement is from a lower to a higher speed zone, the 45 degree sign is located at the point where speed may be increased.

When operating against the current of traffic in double track territory, trains must not exceed the maximum permissible speed prescribed by the 45 degree sign with the current of traffic. This does not modify Rule 93.

The 45 degree sign has two sets of figures. The numerals preceded with letter "P" apply to passenger trains, including Streamliners, and letter "F" to freight and mixed trains.

(c) When passenger trains, including Streamliners, are handled by Diesel engines, Electric engines, passenger or freight steam engines, the train will not exceed the maximum speed authorized by Speed Limit Plate on engine, and will be governed by the 45 degree signs where a lower speed is prescribed.

When freight cars, except cars equipped with steel wheels, air signal and steam heat lines, are handled in passenger trains, including Streamliners, the train will not exceed maximum permissible speed for freight trains in the territory operated.

(d) Speed shown on Speed Limit Plate on engines must not be exceeded.

(e) Steam engines backing up .....	20 MPH
Steam engines in forward motion running light or with caboose only .....	35 MPH
Diesel and Electric engines light or with caboose only .....	50 MPH
Trains handling, not in actual service, derricks, pile drivers, ditchers, cranes, shovels, Jordan spreaders, wedge plows, etc.	

On main lines .....	30 MPH
Except on Six Degree Curves or sharper and on Branch Lines .....	15 MPH

Trains handling ore cars or air dump cars loaded with ore or gravel and scale test car on Main Lines .....	80 MPH
except on 6 degree curves or sharper, and on Branch Lines .....	20 MPH

Unless conditions require a further speed restriction, trains or engines moving against the current of traffic on double track thru interlockings .....	15 MPH
Trains or engines moving on main routes actuating points of spring switches .....	35 MPH

Trains or engines moving in facing point direction at spring switches without facing point lock .....	25 MPH
Trains or engines thru No. 20 turnouts at: .....	35 MPH

Cashmere, east siding switch.

Leavenworth, east and west siding switch.  
 Winton, east and west siding switch.  
 Scenic, east and west siding switch.  
 Skykomish, east siding switch.  
 Gold Bar, east siding switch.  
 Pacific Ave., west siding switch.  
 Interbay end of double track east and west end of yard,  
 and yard lead at 23rd Ave. overhead bridge.  
 Stanwood, north and south siding switch.  
 Mt. Vernon, south siding switch.  
 Bow, north and south siding switch.  
 Samish, north and south siding switch.  
 South Bellingham, north and south siding switch.  
 Still Creek, end of double track.  
 Endot, end of double track.

Trains or engines thru No. 15 turnouts at: ..... 25 MPH  
 Wenatchee, east and west crossover switch west end of yard.  
 Merritt, east and west siding switch.  
 Baring, east and west siding switch.  
 Monroe, east and west siding switch.  
 Snohomish, east and west siding switch.  
 Everett Jct., junction switch end of double track.

Trains or engines thru all other turnouts..... 15 MPH

(f) Open cars loaded with poles, piling, lumber, timber, pipe or other lading which might shift, shall be handled as far as possible in pole trains or local trains. Except at points where it is necessary to classify trains, such cars should be placed as close as possible to the head end of the train but shall not be placed immediately next to Diesel or Electric engines, or immediately next to caboose, occupied outfit cars or passenger cars. These commodities must not be placed in trains at such locations as will conflict with the rules governing the handling of explosives, inflammables or acids.

In double track territory, engineers on trains containing such cars must at all times use extreme care to avoid slack running in or out when passing or being passed by other trains.

On single track, trains containing such cars must be at stop when on siding or adjacent track when meeting or being passed by other trains, except when there are more cars than siding will hold, it is permissible for such train to pull by other train at restricted speed.

### 3. MOVEMENT OF ENGINES DEAD IN TRAINS.

Class O and larger engines will be placed not to exceed 15 cars behind road engine. In electrified zone only class R engines will be handled on head end, all others near rear.

Class F-8 and smaller engines will be placed next ahead of caboose.

Diesel and Gas-Electric engines 2302-2341 must be handled on rear of train.

Not less than five cars will be placed between all engines.

Trains handling Great Northern steam engines dead in train with side rods on both sides will not exceed 40 MPH; and without side rods will not exceed 10 MPH.

Trains handling foreign line steam engines with side rods on both sides will not exceed speed designated by Superintendent; and without side rods will not exceed 10 MPH.

Engines that have any of the truck or driving wheels removed will not be moved in a train without authority of Superintendent. Trains handling Electric, Diesel and Gas-Electric engines in tow dead in train will not exceed following speeds:

Engine Number	Maximum Speed
1 to 28, 75 to 170, 247 to 249, 253 to 259, 262 to 265, 307 to 317, 400 to 468.....	50 MPH
175 to 232, 271 to 274, 276 to 279, 550 to 572, 600 to 655 .....	65 MPH
250, 251, 260, 261, 266 to 270, 275, 280, 281, 350 to 365, 500 to 512 .....	75 MPH
2302 to 2324 .....	50 MPH
2325 to 2339 .....	60 MPH
5000 to 5008 .....	45 MPH
5010 to 5019 .....	55 MPH

### 4. ELECTRIC BRAKES.

In event of failure of the electric straight air brakes, or if electric brakes cannot be used on account of cars not equipped

with electric air brakes being handled in the train, the automatic air brake will be used.

Between terminals if engineer find electric brakes not operating properly, he shall immediately change brake valve over to automatic air brake operation and open circuit breaker to electric brake circuits. After changing from electric straight air brake operation to automatic air brake operation the train will be handled with automatic air to the next terminal where standing terminal air brake test can be made by carmen. Terminal brake tests should then be made with electric straight air and with automatic air and train may be handled with electric straight air if the brakes function properly during terminal test.

- Before leaving any engine terminal, enginemen will make proper tests and inspections of water glasses, gauge cocks, water column and injectors, and will not leave the terminal unless all these are in proper working order.

Should enginemen on steam engines find that the water is not in sight in water glass, and if water cannot be raised to bottom gauge cock or water glass by opening throttle, on oil burning engines the fire must be extinguished immediately, and on coal burning engines the fire must be knocked out or smothered to the extent there will be no damage done to the crown sheet. If water can be raised to the bottom gauge cock or water glass the water level should be built up by use of the pump, or injector, or both.

Should the low water alarm whistle blow, on any engine so equipped, enginemen will immediately ascertain where the water level is in the boiler by blowing out water glasses and the water column, and being sure that water glass mounting valves are open and if water cannot be raised to the bottom gauge cock or water glass by opening throttle, enginemen will be governed by instructions in the preceding paragraph.

- Under Rule 24, engine number only will be displayed in indicators on engines so equipped. This will also apply when our engines are operating over Northern Pacific tracks. Between Klamath Falls and Chemult, Southern Pacific rules will govern.
  - When two or more Diesel or Electric engine units are coupled together the numerals and suffix letter, where provided, of the leading unit will be illuminated at all times when in service. The numerals and suffix letter of trailing units must not be illuminated.
- The numerals and suffix letter of the leading unit only will be used in train orders as prescribed by Consolidated Code Rule 206.

- Gas-Electric engines must not be fueled while occupied by passengers, or coupled to cars occupied by passengers.
- Air hose on Diesel and Electric engines must be hooked up in hose fastener when not in use.

### 10. EMPLOYES WILL BE GOVERNED AS FOLLOWS ON ENGINES, PASSENGER AND FREIGHT CARS EQUIPPED WITH ROLLER BEARINGS:

Roller bearing failures on cars or engines equipped with roller bearing journal boxes may be due to lack of oil or grease. If the box is not blazing, the oil plug in the cover should be removed and engine or valve oil added. Oil must never be added to a box that is blazing. Grease lubricated roller bearing boxes have grease plugs locked with metal strap which must be cut off with chisel before plug can be removed. After the oil has been added and plug replaced, the train should proceed at reduced speed and care exercised until it is apparent that the box will run cool. If fire develops in roller bearing box on any equipment, it must be closely watched, train moved slowly, and Superintendent notified from first available point of communication, who will prescribe for the movement.

Some engines and cars equipped with roller bearings have heat indicators or stench bombs inserted in the housing of boxes which release a strong pungent odor in the event of excessive journal box temperatures. When this odor is detected, train must be stopped at once and box located. Compare the temperature of this box with the other boxes on the same engine or car, check the oil level, and if there is no evidence of overheating, train may proceed, but if the box is overheating proceed only as instructed in the preceding paragraph.

Old cars and covered hopper cars equipped with roller bearings have the lettering "TIMKEN ROLLER BEARINGS" stenciled



beneath the lettering "GREAT NORTHERN" on each side of the car.

Cars and engines equipped with roller bearings must not be allowed to stand alone, even on level track, without brakes being adequately applied.

**11. COOLING AND STEAM BOILER WATERING FACILITIES FOR DIESEL ENGINES ARE PROVIDED AT THE FOLLOWING INTERMEDIATE STATIONS:**

**FIRST SUBDIVISION:**

EVERETT .....Hose at Passenger station.  
GOLD BAR .....Hose in cabinet in Freighthouse.  
SKYKOMISH .....Hose at West end of depot.

**SECOND SUBDIVISION:**

EVERETT .....Hose at Passenger station.  
BURLINGTON .....Hose at oil spout.  
BELLINGHAM .....Hose at Round House.

12. Trains 1, 2, 3, 4, 7, 8, 11, 12, 19, 20, 23 and 24 carry 100 ft. of steam hose in two 50 ft. lengths equipped with standard Vapor and engine steam dome connections for emergency use in event of steam failure on train engine and non-steam train line engine furnished to handle train. In case of steam line failure on a car, connect both hoses together to run around such car so can be taken to first terminal, using combination standard Vapor and steam dome connections attached to reel. Car must be drained before proceeding.
13. Under Rule 2, watches that have been examined and certified to by a designated inspector must be used by train dispatchers and yardmen.
14. Brakemen with less than one year of experience should not be used as flagman except in emergency, and then Superintendent will be notified by wire.
15. When operating snow machines in non-block signal territory, no trains should be permitted to follow closer than a station apart; when that cannot be done, they will be blocked not less than thirty minutes apart.
16. After severe blizzard or dirt storm, employes on first train over road must exercise care to avoid accident caused by striking drifts without first having drifts faced with hand shovels, cutting in far enough to get beyond the hard snow and giving a perpendicular wall to strike against instead of slope or wedgelike shape. When operating snow dozer, conductor in charge will ride in the dozer. On snow and dirt dozers, every precaution must be taken to see that cage, flangers and wings clear all obstacles when in service and are properly secured when in thru trains, and dozers properly turned. Hand screws must be tightened to raise flanger on dozers as high as possible before making a back-up movement, and must not be released until the dozing work is actually to start. Hand screws holding the cage on dozers must be tightened or chains otherwise fastened, except when dozer has air in cylinders and is attended by an employe.
17. Loaded dump cars should not be handled on double track after dark, but if necessary to do so, close watch must be kept by trainmen and if a car dumps its load, train must be stopped and protection afforded on the opposite track.
18. Unless otherwise provided, when passenger trains are operated against the current of traffic on double track or through sidings, conductors shall notify Railway Postal Clerks, train shall stop at points where U. S. Mail is usually picked up and conductors are responsible for delivery of mail to Postal car.
19. Conductors will report by wire all flat spots on wheels of passenger cars. Any cars having flat spots on wheels of more than two and one-half inches long must be set out.
20. Due to limited overhead clearance at tunnels and structures, employes are warned to keep off top of cars of extreme height and width when handled in trains and yards, also such standing cars in electrified zone, except in emergency. In absence of previous advice on such cars, wire proper officer for instructions.
21. The Railway Company is responsible for proper handling of perishable freight on road and at points where Western Fruit Express Company do not maintain representatives. Conductors

on trains handling perishable freight will ascertain from way-bills class of service required and light or extinguish heaters and manipulate vents in accordance with current instructions provided for handling perishable freight issued by the National Perishable Freight Committee.

22. Placarded loaded tank cars handled in through freight trains shall not be nearer than 6th car from engine, occupied caboose or passenger car.

Cars placarded "Explosives", "Inflammable", "Corrosive Liquids", or "Poison Gas" handled in through freight trains, local and mixed trains, shall not be nearer than 16th car from engine, occupied caboose or passenger car.

When length of train will not permit handling of cars as prescribed above—ANY PLACARDED CAR, loaded with above commodities—shall be placed near middle of train, but not nearer than 2nd car from engine, occupied caboose or passenger car.

When switching such cars in terminal yards they must be separated from engine by at least one non-placarded car.

When placarded cars described above are handled in freight trains made up in "blocks" or classifications, placarded car or cars shall be placed near middle of the "block" or classification, but not nearer than 6th car from engine, occupied caboose or passenger car.

When such placarded cars are placed in trains they must not be placed next to each other, next to refrigerators equipped with gas-burning heaters, stoves or lanterns, or next to loaded flat cars, or gondola cars containing lading higher than ends of car that is liable to shift.

Carload express shipments of explosives, sealed and placarded, may be handled on passenger trains; LCL shipments may be made in so-called peddler car with messenger in charge when such car is assigned to the handling of express and baggage exclusively.

Terminal or pick-up points enroute must furnish conductor and engineer Form 250 showing consecutively location in train of all cars placarded "Explosives". At points other than terminals where crews change, notice will be transferred from crew to crew.

Employes will be guided by further instructions governing handling of loaded tank cars, Explosives, Inflammables, Corrosive Liquids, and Poison Gas found in I.C.C. Regulations and Consolidated Code Rules 726(C) and 808.

23. The normal position of a spring switch with facing point lock is identified by a color light type signal displaying a "lunar white" light for train or engine movements in a trailing point direction and for movements in facing point direction when conditions require.

The normal position of a spring switch without facing point lock is identified by a triangular yellow target on switch stand with letter "S" in black, and "lunar white" light in switch lamp in place of green light displayed in both directions thru or over the switch.

Trains departing from stations, either from siding or main track in trailing point movement actuating points of spring switches, a member of crew must observe indication of governing signal in opposite direction after rear end of train has passed thru switch to ascertain if switch points return to normal position. If this signal indicates Stop and no immediate train movement or other cause is evident report the fact to Superintendent from first available point of communication.

During and immediately following snow storms or violent wind storms, spring switches must be operated by hand and relined to normal position before heading out through switch in trailing point movement, actuating switch points, to insure switch is in proper operating condition.

**INDICATORS AT SPRING SWITCHES.**

A Switch Indicator, consisting of a single yellow light unit (normally dark) and a switch-key-controller mounted on an iron mast located at clearance point of a siding, must be operated by a member of the crew who, together with engineer, must observe and be governed by its indication before fouling main

track or making movement from siding to main track thru a spring switch in automatic signal territory, unless the movement is made immediately after an opposing train has passed the switch, and Automatic Signal at leaving end of siding indicates "Proceed."

If Indicator displays a yellow light when switch-key-controller is operated, train or engine movement to main track may be made immediately in accordance with train rights and operating rules. Display of yellow light must continue until leading wheels have passed clearance point.

If Indicator does not display a yellow light when switch-key-controller is operated, train or engine movement to main track may be made in accordance with train rights and operating rules, after operating spring switch by hand; waiting three minutes and taking every precaution to provide proper protection. To operate Switch Indicator, insert switch key in controller and turn clockwise toward "R", hold a few seconds and remove key. If yellow light is displayed and intended movement is not made, insert switch key in controller and turn counter-clockwise toward "N" to restore signal system to normal condition to avoid delay to trains on main track.

Switch-key-controller must never be operated toward "N" after having been operated toward "R" if intended movement to main track is to be made.

24. Facing point locks on hand operated switches are indicated by a six inch yellow stripe painted on target staff. Be positive locking device is restored to normal position after using. A running switch must not be made thru this type switch.

25. DRAGGING EQUIPMENT DETECTOR INDICATOR consists of a single white light unit (normally dark) with circular background mounted on signal or other mast. When white light is displayed, train must be stopped and inspected for dragging equipment. Notify Superintendent from first available point of communication.

26. Rule 204(A) prescribes that copies of train orders will be furnished the rear trainman, such orders will only be furnished on trains designated: Nos. 1, 2, 3, 4, 7, 8, 9, 10, 27, 28, 29 and 30, and sections thereof; also extra passenger trains whether operated as section of regular train or as a passenger extra.

27. OSCILLATING EMERGENCY RED HEADLIGHT will be immediately displayed by day or night when a train is disabled or stopped suddenly by an emergency application of air brakes or when engineer or conductor find it necessary to stop train due to some defect which might cause accident, over-running clearance point at meeting and waiting point, end of double track or junction.

Engineer of an approaching train observing display of emergency red headlight must stop before passing and be governed by conditions existing. If operating on adjacent track, ascertain and if safe for passage, then proceed at restricted speed until train is passed.

OSCILLATING EMERGENCY RED REAR END LIGHT is of two types—Automatic Control—Portable Manual Control—and except as otherwise provided, must be displayed by day or night each time train stops or is running at speed less than 18 MPH. Automatic Control type automatically functions in this manner.

However, when train running at speed above 18 MPH and moving under circumstances in which it might be overtaken by another train or engine and during foggy and stormy weather, light may be operated manually with emergency switch and employees to afford other protection prescribed by rule.

THE USE OF EMERGENCY RED HEADLIGHT AND REAR END LIGHT DOES NOT IN ANY WAY RELIEVE ENGINE-MEN AND TRAINMEN FROM RESPONSIBILITY OF COMPLYING WITH RULES 99 AND 102.

Emergency red rear end light must be extinguished; when standing at origin and terminus stations of train run; when switching being performed from rear; when on siding to be passed by another train; and, when another train operating on adjacent track is approaching from rear, but not until it is known such train is not on same track.

Portable light must be removed before coupling to rear of such car.

Oscillating white light on engines will be displayed in addition to standard headlight governed by Rules 17 and 17(B). In case of headlight failure it can be used as emergency headlight or as a focus light by push button control if desired.

Enginemen and trainmen on trains and engines equipped with oscillating emergency red lights must familiarize themselves with the operation of the lights.

28. Rule D-97 is in effect on this Division.

29. Trains handling flat or skeleton cars loaded with logs must stop at appropriate locations immediately before passing over through-truss bridges or through tunnels and make thorough inspection of all cars of logs in their train, making certain train and lading are in safe condition before proceeding. Extra stops en route will be made for this purpose when in the judgment of the conductor it is necessary.

Trainmen must maintain watch behind their trains for logs that may have rolled off cars and if main track is fouled take prompt action to protect trains.

On double track, conductors must notify train dispatcher when logs are to be handled and the log train must be at stop when being passed by other trains, except that when two trains handling logs are passed either one should stop until the other train has pulled by whether on siding or double track.

On single track, trains handling logs must be at stop when meeting or being passed by passenger and freight trains, except when there are more cars than siding will hold, it is permissible for log train to pull by such trains at restricted speed.

Unless conditions require further speed restrictions, trains handling logs must not exceed 25 MPH.

No trains may pass under overhead railroad bridge at Snohomish when cars loaded with logs are passing over this bridge.

30. GREAT NORTHERN BULLETINS ON TENANT LINES.

NP Ry ..... Everett, Auburn, Sumas, Seattle.  
CMSP&P RR ..... Everett, Tacoma, Enumclaw.  
Canadian National Ry ..... Port Mann.  
National Harbours Board Ry..... Vancouver, B. C.

31. SP&S Ry bulletins at Interbay roundhouse, Interbay Yard office and UD office, Seattle.

32. Red signs on frost boxes of water and oil tanks—in case of emergency, close large valve in frost box.

33. EMERGENCY TELEPHONES.

Leavenworth, west switch .....	Booth
Tunnel 18.5, east end .....	Booth
Winton, west switch .....	Booth
Tunnel 14.7, one-half mile east .....	Booth
Berne, east switch .....	Booth
Cascade Tunnel No. 15 .....	In each refuge bay, except Nos. 2, 4, 18 and 20
Scenic, west switch .....	Booth
East end Bridge 407 .....	Booth
East switch Tonga .....	Watchman's Cabin
Skykomish, east switch crossover .....	Booth
Grotto, west switch .....	Booth
Halford Quarry .....	Booth
Reiter, 2 miles east .....	Watchman's Cabin
Reiter, Gravel pit .....	Booth
Gold Bar, west switch .....	Booth
Monroe, east switch .....	Booth
Snohomish, east end Br. 455 .....	Booth
Pacific Ave., west switch .....	Booth
Everett Tunnel No. 16, east end .....	Booth
Everett Jct. ....	Booth
Crossover, MP 24.29 .....	Booth
MP 15, Standard Oil Spur .....	Booth
MP 11.5 .....	Booth
MP 9.5 .....	Booth
Ballard, crossover .....	Booth
Interbay yard, east end .....	Booth
Between Delta Jct. and wye .....	Booth

Bridge 11 .....	Watchman Cabin
Kruse Jct. ....	Booth
Belleville Pit, switch .....	Booth
MP 76 .....	Booth
MP 86 .....	Watchman Cabin
Samish .....	Booth
Sockeye, highway crossing .....	Booth
So. Bellingham .....	Booth
No. Bellingham, cement spur .....	Booth
Custer, south switch .....	Booth
MP 125 .....	Booth
Brownsville .....	Booth
Fraser Mill Spur .....	Booth
Sapperton .....	Switchman's Shanty
Dominion bridge .....	Booth
Endot .....	Booth
Still Creek .....	Booth
B. I. Jct. ....	Booth

### 34. LOCATION OF TUNNELS

#### First Subdivision:

Tunnel No. 13	—2 miles west of Chumstick. Length—2601'. O. H. Clearance 19' 2" to trolley wire.
Tunnel No. 13.5	—4.7 miles west of Chumstick. Length—788'. O. H. Clearance 19' to trolley wire.
Tunnel No. 14	—1.08 miles east of Winton. Length—4059.4'. O. H. Clearance 19' 11" to trolley wire.
Tunnel No. 14.7	—2.67 miles east of Berne. Length—674.5'. O. H. Clearance 22' to trolley wire.
Tunnel No. 15	—Between Berne and Scenic. Length—41152'. O. H. Clearance 19' 8" to trolley wire.
Tunnel No. 16	—0.24 miles east of Everett. Length—2440'. Height—21.1'.
Tunnel No. 17	—0.10 miles east of Seattle. Length—5141.5'. Height—23.3'.

#### Second Subdivision:

Tunnel No. 18	—0.33 miles north of Samish. Length—1113'. Height—21.2'.
Tunnel No. 19	—4 miles south of So. Bellingham. Length—141.3'. Height—20.5'.
Tunnel No. 20	—3.70 miles south of So. Bellingham. Length—328.5'. Height—20.35'.
Tunnel No. 21	—1 mile south of So. Bellingham. Length—713.2'. Height—20.9'.

## FIRST SUBDIVISION

(Main Line)

### 1. MAXIMUM PERMISSIBLE SPEED FOR TRAINS.

Between .....	Passenger	Freight
Wenatchee and Peshastin .....	50 MPH	50 MPH
Peshastin and Winton .....	55 MPH	50 MPH
Winton and Merritt .....	50 MPH	50 MPH
Merritt and Skykomish .....	30 MPH	20 MPH
Skykomish and Baring .....	50 MPH	50 MPH
Baring and 2 Miles East of Gold Bar.....	35 MPH	25 MPH
2 Miles East of Gold Bar and Everett.....	79 MPH	50 MPH
Everett and Seattle .....	60 MPH	50 MPH

### 2. SPEED RESTRICTIONS.

Bridge 370, Dryden, R engines .....	20 MPH
Bridge 371, Dryden, R engines .....	10 MPH
Bridge 372, Dryden, R engines .....	10 MPH
Bridge 406, Scenic 4 miles west of, R engines.....	20 MPH
Bridge 408, Tonga 3 miles east of, R and Q engines.....	20 MPH
Snohomish, train 4 passing depot .....	35 MPH
Interbay, over NP Ry crossing .....	15 MPH
Seattle, thru turnouts South Portal .....	10 MPH
Seattle, over public crossings .....	20 MPH
Between Home Signals of Interlockings at .....	20 MPH
Everett (Pacific Avenue. Everett Jct.	

### 3. ENGINE RESTRICTIONS ON INDUSTRY TRACKS.

W-1 class electric locomotives 5018-5019 not permitted on wye at Skykomish.

### 4. TRAIN REGISTER EXCEPTIONS.

Appleyard, register is for second and inferior class trains.  
Wenatchee, register is for first class trains and passenger extras.  
Monroe, register only for CMStP&P RR trains.

Snohomish, register only for NP Ry trains and eastward NP Ry trains register by ticket.

Lowell, NP Jct., register only for NP Ry and CMStP&P RR trains.

Interbay and Skykomish, first class trains register by ticket.  
Wenatchee, Nos. 1 and 2 register by ticket.

Interbay, engineers and conductors of trains originating which operate over joint track south of Seattle must register at yard office and show number of last bulletin issued by NP and GN.

### 5. CLEARANCE PROVISIONS AND EXCEPTIONS RULE 83(B).

At Everett Jct., trains for which this point is initial station may proceed on authority of clearance under which such trains arrive.

### 6. IN ELECTRIFIED ZONE, APPELYARD TO SKYKOMISH.

Power transmission line carries 44,000 volts.

Signal transmission line carries 13,200 volts.

Trolley line carries 11,500 volts.

All wires must be considered energized unless a clearance has been obtained from the operator at Skykomish substation.

Telegraph and telephone wires are not located along right-of-way. Never attempt to connect field telephone apparatus to any wires located along right-of-way in this zone.

"Trolley Dead-end" signs are placed on cross span over each of the four tracks leading into Electric Shop at Appleyard and at West end of Skykomish yard and Skykomish motor shed track.

### RESTRICTED OVERHEAD CLEARANCES.

The trolley wires in the open sections provide a clearance of 21 feet to 24 feet above top of rail.

At the following locations the overhead clearance of trolley wire is restricted to 19 feet:

Columbia River Bridge between Appleyard and Wenatchee.

Overhead bridge ½ mile west of Cashmere.

Bridge 370, 1 mile east of Dryden.

Tunnel No. 13, 2 miles west of Chumstick.

Tunnel No. 13, 5.2 miles east of Winton.

Tunnel No. 14, 1 mile east of Winton.

Cascade Tunnel No. 15, between Berne-Scenic.

Employees must keep off the top of cars and engines on electrified tracks, except in emergency, and then must use extreme care.

Snohomish, NP overhead bridge .....19' 0"

Skykomish, targets on roundhouse switch stands will not clear man riding on side of cars or engines.

Seattle, overhead bridge between Washington and  
Main Sta.....19' 4"  
overhead bridge between Third and Fourth  
Ave. So.....19' 4"

7. Between Appleyard and Wenatchee, eastward First Subdivision freight trains will use main track, westward freight trains will use lead track entering main track at crossover just west of passenger station, Wenatchee, or Olds crossover, unless otherwise instructed by Yardmaster.
8. Appleyard, Yard lead switch and crossovers main track to yard lead are located as follows:  
#1 switch designating the east lead—200 ft. west of Br. 361.  
#2 crossover switch—100 feet west of MP 1647.  
#3 crossover switch—at culvert 1647.60.
- Wenatchee:  
#1 crossover, one mile east of depot.  
#2 crossover, 800 ft. east of depot.  
#3 crossover, 670 ft. west of depot.  
#4 crossover, 685 ft. west of depot.  
#5 crossover, Fifth St., one mile west of depot.  
Olds crossover, 3 miles west of depot.  
Crossovers 1, 2 and 4 are trailing point, and 3, 5 and Olds are facing point for eastward trains.
9. Wenatchee, westward trains moving from W-O Line lead to First Subdivision and required to wait for westward trains on First Subdivision shall stop east of sign reading "Wait Here". For further details and push button operation see instructions posted in iron box locked with switch lock.
10. Between Appleyard and Skykomish where helper engines are cut in copies of train orders must be furnished helper engines.
11. Cashmere, Monroe, Snohomish and Edmonds, crossing signals are equipped with switch-key controllers. Trains or engines within circuit may clear signals for highway traffic by inserting switch key in controller and turn to right. Crossing signals must be restored to normal operating condition before leaving.
12. Winton, Berne, Scenic, electric knife switches located in depot provide manual control of signals at these locations so that signals can be set to display Stop-indication in case any defect is discovered while trains are passing depots. Trains stopped by any of these three signals will not proceed until instructed by trainmen to do so. Knife switches are connected to westward automatic block signal at west switch, Scenic and Winton, and to eastward automatic block signal at east switch, Berne. Berne, two rail clamps have been placed in depot for emergency use. When necessary to set out bad order car on siding at Berne, train crew must get clamps from depot and see they are properly secured and blocked to rail on east end of car. Crew that picks up bad order car see clamps are removed and replaced in depot.
13. Cascade tunnel, track between Berne and Scenic is controlled by positive block in both directions. When stopped by a Stop-indication at automatic block signal located near entrance to tunnel, train must not proceed unless authorized by train order to do so. In case of loss of power or other emergency, a train in the tunnel may make a forward or backward movement to Scenic or Berne without flag protection and may pass signals indicating Stop and proceed at restricted speed without stopping. Westward trains encountering Signal 1707.9 inside west portal displaying Stop-indication must not pass west portal until it is known track is clear to east switch Scenic.
14. Scenic, water tank 3 miles west.
15. Skykomish, unless otherwise directed, extension on east end of siding for use only by eastward trains and in no case will train or cars be left on this extension without engine coupled and air brakes operative.
16. Baring, water tank 1.26 miles west.
17. Between NP Jct. and Delta (freight yard) 3.26 miles west, trains and engines will be governed by NP Ry time-table and Special Instructions.
18. Interbay, main track is a single track between 700 ft. east of NP Ry crossing and 4000 ft. west of bridge 4, Ballard. Each end of this single track is equipped with a spring switch, normal position is for trains entering double track.  
When an eastward movement is to be made from yard lead to main track, trainmen shall operate push button "R" at signal 4.8. If no conflicting movement is being made on main track and spring switch is in proper operating condition, signal 4.8 will indicate proceed after a time interval of three minutes. After push button "R" is operated a white light will be displayed if operation is effective.  
If push button "R" is operated and the intended movement is not made, or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track. Push button "N" must never be operated, after push button "R" if the intended movement is to be made.  
Westward freight trains will enter yard at the connection from westward main track at east end of yard unless otherwise instructed by yardmaster. Trains or engines must stop east of signal 5.3 and not proceed until trainmen have lined switch to enter yard.
19. SEATTLE, KING STREET PASSENGER STATION TUNNEL RULES.  
1. King Street Passenger Station Tunnel Rules shall consist of Great Northern Interlocking Rules as set forth in the Consolidated Code of Operating Rules and General Instructions, supplemented by the following special instructions, and will govern train and engine movements between North Portal and South Portal.  
2. A positive block is maintained in both directions between these stations. Trains and engines may make a forward or backward movement within these limits without flag protection, observing governing signal indications.  
3. No train or engine will make a complete through movement between North Portal and South Portal against the current of traffic, or pass the governing home signal at the immediate entrance to the tunnel on either track displaying a "Stop" indication, except on the authority of a "Tunnel Card" properly completed by signalman in charge and OK'd by the Signalman at opposite station. When this governing home signal indicates "Stop", trains and engines, after stopping, must proceed at restricted speed to the next signal and be governed by its indication.  
4. Tunnel Cards shall be used as required: Form 26 for train and engine movements from North Portal to South Portal, and Form 26-A for train and engine movements from South Portal to North Portal.  
5. "Tunnel Card" does not dispense with the observance of or compliance with the indications of southward home signals at the South end of the tunnel governing entrance to the South Portal Interlocking or the northward home signals governing entrance to the North Portal Interlocking.  
6. At South Portal, trains and engines may enter the tunnel on either track for short switching movements if required. If the governing home signal at the immediate entrance to the tunnel displays a Stop-indication, a Tunnel Card must first be secured, as prescribed by Rule 3.  
7. Interlocking signal located at the north entrance of the tunnel, controlled from South Portal, and governing southward train and engine movements on the Southward track, displays indications in accordance with Great Northern Rules 601-A, 601-C and 601-D.  
Green over Red (Rule 601-C) displayed indicates route through South Portal Interlocking to southward main track (Tunnel track 4) properly lined.  
Red over Yellow (Rule 601-D) displayed indicates diverging route through South Portal Interlocking properly lined.  
These indications repeat the indications of the dwarf signal of color light type located at the south exit of the tunnel, governing southward train and engine movements to Southward main track (Tunnel track 4) and other tracks of King Street Pas-

senger Station. Emergencies may arise which may cause a change in the indications of this dwarf signal after southward train or engine has entered the tunnel and enginemen and trainmen must be on the alert to observe such change which will be indicated by the display of a yellow light at the special approach signal located in the tunnel about 1200 feet from the south exit.

8. The maximum permissible speeds between North Portal and South Portal for all trains and engines are: 20 MPH moving with the current of traffic, and 10 MPH moving against the current of traffic.

9. Operating directions are: "North" from south end of King Street Station through South Portal to North Portal, and "South" from North Portal through South Portal to south end of King Street Station.

10. Dwarf signal of color light type, located between northward and southward main tracks, south end of King Street Station governing northward train and engine movements on southward main track (Tunnel track 4) is controlled from South Portal Interlocking.

When Red is displayed, Great Northern Rule 601-A governs.

When Yellow is displayed, Great Northern Rule 601-E governs.

When a train or engine is stopped by the Stop-indication of this signal, Signalman must be informed of desire to make the northward movement on southward main track (Tunnel track 4) by four operations of the push button located on top of the signal.

20. Seattle, train, yard and engine movements between GN freight yard and 5th Avenue tracks will be made via NP and UP main track Oregon Street connection and their time-tables and Special Instructions will govern.

#### 21. SPEED TEST BOARDS.

Engineers shall test speed of their trains passing following points as compared with Speed Table:

Westward,

Between MP 1779 and MP 1780 approximately 2 miles west of Snohomish.

Eastward,

Between MP 11 and MP 12 approximately 4 miles east of Ballard.

Between MP 1779 and MP 1780 approximately 2 miles west of Snohomish.

#### 22. CROSSOVERS ON DOUBLE TRACK.

Facing Point.

MP 7.36 just east of Ballard.  
MP 28.5 front of depot Mukilteo.

Trailing Point.

MP 14.5, ¼ mile west of Richmond Beach.

MP 15, Standard Oil Spur ¾ mile east of Richmond Beach.

MP 17.92 just east of Edmonds.

MP 24.29 between Meadowdale and Mukilteo.

MP 29.21 at Mukilteo.

MP 31.33 GN oil spur, 1 mile west of Everett Jct.

#### 23. SPRING SWITCHES WITH FACING POINT LOCK.

Wenatchee Olds crossover (Connection to W-O Line) east and west crossover switches.

Cashmere \_\_\_\_\_ east and west siding switch.

Leavenworth \_\_\_\_\_ east and west siding switch.

Winton \_\_\_\_\_ east and west siding switch.

Merritt \_\_\_\_\_ east and west siding switch.

Skykomish \_\_\_\_\_ east and west siding switch.

Baring \_\_\_\_\_ east and west siding switch.

Gold Bar \_\_\_\_\_ east and west siding switch.

Monroe \_\_\_\_\_ east and west siding switch.

Snohomish \_\_\_\_\_ east and west siding switch.

Interbay \_\_\_\_\_ yard lead switch near 23rd Avenue overhead bridge.

Normal position is for main track.

Interbay \_\_\_\_\_ east end double track.

Normal position is for eastward main track.

Interbay \_\_\_\_\_ west end double track.

Normal position is for westward main track.

#### 24. DRAGGING EQUIPMENT DETECTOR INDICATORS.

Item 25, page 10, will govern use of these indicators, except at Berne and Scenic which are governed by item 25 below:

Westward,

On cable post 300 ft. east of MP 7 near Ballard.

On cable post approximately 1100 ft.

East of MP 1774, 1½ miles East of Snohomish.

On Post MP 1663.99 approximately 3100 ft. west of Signals 1662.7 and 1662.8 about 2½ miles east of Dryden.

On signal 1696.3 approximately 3½ miles west of Merritt.

On Iron masts at Turntable Switch—Berne.

On Tunnel Wall 1728 ft. west of East Portal Tunnel 15—Berne.

On Trolley Pole 1723.36, 2550 ft. east of Bridge 406.

On signal 1725.5, 2900 ft. east of Bridge 412.

On cable post approximately 4 miles west of Baring.

On cable post just east of Index.

Eastward,

On cable post 250 ft. west of MP 6 near Ballard.

On cable post approximately 100 ft. west of Snohomish Junction switch.

On cable post approximately 2½ miles east of Index.

On signal 1742.0 approximately 2 miles west of Baring.

On Trolley Pole 1728.66, 2100 ft. west of Bridge 418.

On Trolley Pole 1725.20, 2150 ft. west of Bridge 408.

On Tunnel Wall 1616 ft. east of West Portal Tunnel 15—Scenic.

On Tunnel Wall 4916 ft. east of West Portal Tunnel 15—Scenic.

On cable post approximately 1 mile east of Berne.

On signal 1693.2 just west of Merritt.

On Mast at Signal 1667.0 approximately one mile west of Dryden.

25. Berne and Scenic-Drugging Equipment Detectors located as indicated in Item 24 were installed for the purpose of inspection of freight trains entering tunnel either eastward or westward. In order to do this, swing brakeman will be required to ride on head end of Eastward train out of Skykomish and get off at the depot, Scenic, and engineer will pull by slowly so he can look over entire train. If anything is found wrong he can open the light control switch located in depot and engineer will stop the train and not move until he gets proper signal from the train man.

Westward movements, swing brakeman will arrange to ride head end of train out of Merritt, get off at depot Berne, and inspect train as it pulls by slowly. The light control switch, located in depot, can be opened and train stopped at the signals.

Special Red slide fence light is placed 40 feet from the West Portal of Cascade tunnel, Scenic, to give indication for Westward trains when necessary. This signal will not show light unless there is slide-fence operation between West Portal of the tunnel and East siding switch.

If this signal shows Red indication, trains must stop and not pass until they send flagman ahead to see whether or not main track is blocked by slide, and make report promptly of the condition.

#### 26. MANUAL INTERLOCKINGS.

Ballard, Br. 4 ..... Salmon Bay drawbridge.  
North Portal-South Portal.....King Street tunnel and terminal tracks.

#### 27. MANUAL INTERLOCKINGS WITH DUAL CONTROL SWITCHES.

Scenic ..... East and west siding switch.

Everett—Pacific Ave. .... West siding switch.

Everett Jct.....End of double track junction with 2nd Subdivision single track between these stations.

Scenic, switches electrically controlled by operator at depot.

Eastward home signals at east switch equipped with Red Marker Disc and "Positive Block" sign, Item 13 of this Subdivision governs in addition to Interlocking Rules.

Home signal governing eastward movements on main track at east siding switch is located to left of main track.

Home signal governing westward movements from siding to main track at west siding switch is located to left of siding.

Everett, interlocking electrically controlled by operator at depot.

The Home Signal Limits (Rule 605) of this interlocking extend from westward home signal for west siding switch at Pacific

Ave. to Eastward home signals for end of double track and junction switches Everett Jct.

Trains and engines receiving a proceed indication of home signal governing entrance to these "Home Signal Limits" at either Pacific Ave. or Everett Jct. may proceed, regardless of class, in accordance with Rule 605. A Positive Block is maintained in both directions within the "Home Signal Limits" and Rule 670 does not apply.

Trains and engines may make forward or backward movements within these home signal limits without flag protection, observing all governing signal indications. When stopped by a Stop-indication of the governing home signal at entrance to home signal limits at either Pacific Ave. or Everett Jct., trains and engines may proceed only when a change in the governing home signal indication permits or when authorized by train order.

## 28. AUTOMATIC INTERLOCKINGS.

Interbay ..... NP Ry crossing.

## 29. INSTRUCTIONS GOVERNING OPERATION OF TRAINS IN ELECTRIFIED TERRITORY.

Between Peshastin and 1 mile east of east switch, Leavenworth, between 1 mile west of west switch, Leavenworth, and Winton tunnel, when, for any reason, single trains in excess of 3500 tons with three General Electric engines coupled on the head end are stopped on heavy grade specified above will double their trains into either Leavenworth or Winton and will not attempt to start train on Chumstick Line to avoid damage to equipment and excessive delays. When helper engine is operated on freight trains, conductors must see that helper engine is cut into train so that not more than rated tonnage of the helper engine will be trailing. When train does not have full tonnage for all of the engines, tonnage in the train must be prorated between the train engine and the helper engine.

When necessary to make a backup movement on ascending mountain grade sufficient hand brakes must be set on rear end to hold up the slack; then when ready to proceed ahead, hand brakes must be released starting from the rear car first and working toward the head end of train so the slack will run out gradually and avoid break-in-two.

Engineers, when practicable, must operate helper engines from controls on the right side.

Between Skykomish and Wenatchee, in handling trains of 5000 tons or over, see that 15 heavily constructed cars with large A.A.R. drawbars and heavy draft rigging are placed next behind engines with the heavy drawbar pull.

Helper engines on eastward tonnage trains will drop their regeneration load at 20 MPH at foot of 2.2 grade, Merritt, and pick it up again starting down Winton Hill and will drop their regeneration load at 20 MPH when stopping at Dryden to cut out helper.

Westward helper engines will not assist train engineer thru regeneration in making final stop at Skykomish.

Holding capacity of each unit in regeneration as follows:

	2.2% grade	1.6% grade
5010-5017 .....	1400 tons	1900 tons
5018-5019 .....	2300 tons	4500 tons
5000-5008 .....	1250 tons	1750 tons

Tonnage rating of electric engines on 2.2 grade:

5010-5017 .....	1000 tons per unit,
5018-5019 .....	1900 tons per unit,
5000-5008 .....	750 tons per unit.

Steam derricks, ditchers, and other roadway machines must not be worked within 200 ft. of tunnel portals within the electrified territory unless power is turned off on the trolley line.

Arrangements for handling of the power shall be made with Electrical Superintendent or his representatives.

General Electric engines 5010 to 5017 inclusive, operating between Appleyard and Skykomish, are equipped with high voltage connectors at the top of each end of cabs so that when engines are coupled together these connectors contact each other. These connectors are painted red, and when any pantagraph of a coupled number of these units is in contact with the trolley wire, all of these connectors are energized.

Do not come in contact with these connectors.

Diesel freight engines, 5400 H.P., have the following tonnage ratings:

2.2 grades, 2000 trailing tons.
1.6 grades, 3000 trailing tons.
1.0 grades, 4800 trailing tons.

These 5400 H.P. diesel engines will handle 2000 tons, Skykomish to Berne, in helper service and the same combination of electric engines should be operated thru Skykomish to Berne.

Diesel engines will handle 1500 tons single thru Cascade tunnel eastward.

The electric holding brakes on these engines will hold at approximately 17 MPH the same tonnage on a descending grade that the engine will pull up the grade at continuous tractive effort. That is, the regenerative brake on these engines will hold 2000 tons on a 2.2 grade, 3000 tons on a 1.6 grade and 4800 tons on a 1.0 grade at approximately 17 MPH. At either a higher or lower speed than this, the engines will handle less than this maximum tonnage. On the 2.2 grade, diesel engines should be cut into the train approximately 1800 tons from the rear end which is the tonnage the diesel engines can hold with the electric brake at from approximately 15 to 20 MPH.

This brake was not designed as a stopping brake, but is primarily for holding trains on long grades and engineers in the electrified territory must not expect diesel engine holding brake to have the capacity for slowing down heavy freight trains that the electric engines have.

Diesel engines must not be cut in ahead of the electric engines in either direction.

Engineers on diesel engines will not use any power to push train at any point from Berne to Appleyard, except when stop is made at Winton, and then only to get the train started at speed of 10 MPH.

All trains approaching Skykomish, with diesel engines cut in as helper, must stop before passing automatic block signal 1731.3, east of east switch, before proceeding into yard regardless of signal indication.

Diesel engines, 5400 H.P., operated on eastward freight trains thru Cascade tunnel will be governed as follows:

1. Engage both cooling fans on all four units of the diesel leaving Skykomish and control the engine cooling water temperatures between 155 and 165 degrees by proper shutter regulation.

2. When diesel engine passes Scenic depot, open all four radiator shutters on the two rear units wide open.

3. When diesel engine enters tunnel, reduce throttle to No. 6 position and operate diesel engine thru tunnel in No. 6 throttle.

4. Regulate water temperature on the two leading cabs with the radiator shutters to maintain a water temperature of between 155 and 165 degrees.

5. Hot engine alarms are set at 195 degrees and should the hot engine alarm sound on either of the two rear cabs, isolate the unit with high temperature and handle train on three units thru tunnel. Place the unit back on the line after water temperature is reduced to normal and check water level in engine cooling water tanks. Should the water level fall below minimum level as indicated in the water glass, shut engine down.

6. If, for any reason, eastward trains being handled or helped by diesel engines are stopped in tunnel, diesel engines must be closed down and members of crew on both head end and rear end of train must communicate with each other on telephones located in each bay of the tunnel and have a thorough understanding with entire crew whether train will be backed out of tunnel or doubled out to Berne. If backed out to Scenic, train must be stopped before passing east siding switch and not back down main track unless protected by train order or flagman, or backing in on siding, it must be known siding is clear. In making these moves definite understanding must be had with all members of the crew as to what is to be done to avoid accident.

7. Report maximum engine water temperature reached in tunnel each trip on the engineer's work report on arrival at Appleyard.

30. Use retainers on all cars between Scenic and Skykomish westward and between East Portal Cascade Tunnel and Merritt eastward in handling passenger equipment trains with Diesel locomotives. Retainers not required westward in Tunnel.

31. Skykomish, Spring switch indicator located at clearance point of east switch of extension to eastward siding is connected with a repeat indicator at crossover near signal 1781.4. These indicators govern train and engine movements through spring switch at east end of siding extension.

This repeat indicator must not be operated, except when train rights and operating rules permit movement through eastward siding extension without stopping at clearance point of east switch. A yellow light displayed on repeat indicator does not authorize movement beyond switch indicator at clearance point of east switch which indicator must also display yellow light for continuous movement.

## SECOND SUBDIVISION

(Vancouver Line)

INSTRUCTIONS GOVERNING THE OPERATION OF STREAMLINER TRAINS BETWEEN EVERETT JCT. AND VANCOUVER, B. C.

### CLEARING OF STREAMLINERS.

The time of Nos. 355, 357 and 361 must be cleared by Southward first-class trains not less than 5 minutes before Nos. 355, 357 and 361 are due to leave the last station where time is shown, and by other Southward trains not less than 10 minutes before Nos. 355, 357 and 361 are due to leave the last station where time is shown.

The time of Nos. 355, 357 and 361 must be cleared by Northward trains, except Nos. 356, 360 and 362, not less than 10 minutes at all stations.

The time of Nos. 356, 360 and 362 must be cleared by Northward first-class trains not less than 5 minutes before Nos. 356, 360 and 362 are due to leave the last station where time is shown, and by other Northward trains not less than 10 minutes before Nos. 356, 360 and 362 are due to leave the last station where time is shown.

The time of Nos. 356, 360 and 362 must be cleared by Southward trains, except Nos. 355, 357 and 361, not less than 10 minutes at all stations.

Within yard limits, yard engines and light engine movements must clear the main track not less than 10 minutes before Nos. 355, 357, 361, 356, 360 and 362 are due to leave the last station where time is shown.

### MAXIMUM PERMISSIBLE SPEED OF STREAMLINERS.

Streamliner trains will be so designated in column with schedule number.

Maximum permissible speed of streamliner trains will be designated by distinctive reflectorized roadway signs set in an upward angle of 45 degrees as prescribed in Item 2(b)—SPEED RESTRICTIONS GENERAL—ALL SUBDIVISIONS.

ZONE TERRITORIES AND MAXIMUM PERMISSIBLE SPEED OF PASSENGER TRAINS, INCLUDING STREAMLINERS, OPERATING VIA ROUTES INDICATED BELOW:

Between Everett Junction and Vancouver, B. C.

Zones	Mileposts	MPH
Everett Junction to Long Siding .....	32.2- 35.9	50
Long Siding to S. end Curve 11.....	35.9- 36.7	30
S. end Curve 11 to N. end Bridge 10 .....	36.7- 37.2	10
N. end Bridge 10 to S. Switch, Marysville.....	37.2- 38.5	20
S. Switch, Marysville to N. Switch, Marysville..	38.5- 39.2	25
N. Switch Marysville to S. end Shoofly.....	39.2- 43.6	79
Over Shoofly .....	43.6- 43.8	30
N. end Shoofly to S. end Curve 361 .....	43.8- 48.9	79
S. end Curve 361 to N. end Bridge 17 .....	48.9- 50.8	60
N. end Bridge 17 to S. Switch Stanwood .....	50.8- 55.1	79
S. Switch Stanwood to N. Switch Stanwood .....	55.1- 56.5	65
N. Switch Stanwood to S. Switch, Mt. Vernon..	56.5- 67.0	79
S. Switch, Mount Vernon, to highway, N. Mt. Vernon .....	67.0- 68.9	25
N. Mt. Vernon to S. City Limits, Burlington....	68.9- 71.4	60
Through Burlington .....	71.4- 72.6	25
N. City Limits, Burlington to S. end Curve 373 .....	72.6- 74.5	79
Around Curve 373 .....	74.5- 74.8	45

N. end Curve 373 to S. end Curve 374 .....	74.8- 76.4	79
Around Curve 374 .....	76.4- 76.8	60
N. end Curve 374 to S. end Curve 376, Samish .....	76.8- 82.6	75
S. end Curve 376 to S. end Curve 403, S. Bellingham .....	82.6- 93.5	40
S. Bellingham to N. Switch, Bellingham.....	93.5- 98.2	30
N. Switch, Bellingham to N. end Curve 422.....	98.2-101.1	45
N. end Curve 422 to N. end Curve 425.....	101.1-103.4	55
N. end Curve 425 to S. end Curve 426.....	103.4-105.2	60
S. end Curve 426 to N. end Curve 427.....	105.2-106.2	50
N. end Curve 427 to S. end Curve 428.....	106.2-108.2	70
Around Curve 428 .....	108.2-108.7	60
N. end Curve 428 to S. City Limits Blaine.....	108.7-117.2	70
S. City Limits Blaine to N. Switch Blaine.....	117.2-119.7	50
N. Switch Blaine to N. end Curve 462.....	119.7-139.0	55
Curve 462 to Fraser River Bridge .....	139.0-140.9	40
Across Fraser River Bridge .....	140.9-143.8	6
N. end Fraser River Bridge to Brunette St.....	143.8-145.1	35
Over Brunette St. ....	145.1	10
Brunette St. to Spring Switch—Endot.....	145.1-146.8	55
Thru Spring Switch Endot .....	146.8-146.9	35
Spring Switch Endot to S. end Curve 476.....	146.9-150.1	55
S. end Curve 476 to Bridge 81.5.....	150.1-151	25
Bridge 81.5 to Spring Switch Still Creek.....	151 -153.9	55
Thru Spring Switch Still Creek .....	153.9-154	35
Spring Switch Still Creek to S. end Curve 481 .....	154 -155.2	55
S. end Curve 481 to Vancouver Station.....	155.2-156.4	35

### 1. MAXIMUM PERMISSIBLE SPEED FOR TRAINS.

Between	Passenger	Freight
Everett Jct. and Samish .....	79 MPH	50 MPH
Samish and Bellingham .....	40 MPH	30 MPH
Bellingham and Blaine .....	70 MPH	50 MPH
Blaine and Vancouver .....	55 MPH	50 MPH

### 2. SPEED RESTRICTIONS.

Everett, Bond, Hewitt, California, 24th St. Crossings ..	20 MPH
South Bellingham, NP Ry. Crossing .....	10 MPH
Bellingham, over street crossings .....	10 MPH
Bellingham, over CMStP&P RR Crossings .....	10 MPH
White Rock-Crescent Beach, October 15 to May 1, between MP 123 and MP 127 .....	20 MPH
New Westminster, Fraser River Bridge.....	6 MPH
North Wye Switch, Fraser River Bridge.....	4 MPH
Over Front and Columbia St. Crossings .....	10 MPH
Vancouver, Burrard Inlet, CPR Crossing, Powell St....	8 MPH

### 3. ENGINE RESTRICTIONS.

Engines must not enter train shed of Continental Can Co.—Endot.

### 4. TRAIN REGISTER EXCEPTIONS.

Vancouver, Vancouver Jct. C.N. Jct., trains arriving will register in G. N. train order office at Vancouver.  
New Westminster, all trains register by ticket.  
Burlington, first class trains register by ticket.  
Delta, register only for trains originating and terminating.

### 5. CLEARANCE PROVISIONS AND EXCEPTIONS RULE 83(B).

Everett Jct., trains for which this point is initial station may proceed on authority of clearance under which such trains arrive.

### 6. RESTRICTED CLEARANCES.

The following overhead wires crossing our track do not have standard clearance of 27 ft. from top of rail:

Delta, south wye switch .....	25'
Marysville, industry track .....	23'
Stanwood, house track and industry track .....	24'
Fir, English Lumber Co. spur 1.3 mile south .....	25'
Mt. Vernon, Union Oil Co. spur .....	25' 10"
Burlington, Carnation Milk Co. spur .....	25' 6"
Vancouver, Hastings St. viaduct .....	20' 2"





24. **MANUAL INTERLOCKINGS.**

Marysville, 1.25 miles south of.....drawbridge 11.  
 0.50 miles south of.....drawbridge 12.  
 New Westminster-Fraser River Jct. ....drawbridge and junction  
 with CN and BCE Rys.

New Westminster-Fraser River Jct., when, for any reason, a proceed indication cannot be displayed at the home signal, no train or engine movement shall be made over bridge, except on authority of regular Dominion Government clearance.

25. **MANUAL INTERLOCKINGS WITH DUAL CONTROL SWITCHES.**

Delta Jct. ....Drawbridge 10 and NP Ry crossing.  
 These switches are electrically controlled by operator at Delta Jct.

Whistle signals for routes:

Main track .....	1 long.
From North to Delta Yard .....	1 long, 1 short.
From South to Delta Yard .....	2 long, 1 short.
From Delta Yard to North .....	2 long.
From Delta Yard to South .....	3 long, 1 short.
From NP Ry connection to North.....	1 long, 1 short, 1 long.
From North to NP Ry connection.....	1 long, 1 short, 2 long.

26. **AUTOMATIC INTERLOCKINGS.**

Still Creek, 2.14 miles south of.....B.C.E. Ry crossing.

27. **SEMI-AUTOMATIC INTERLOCKINGS.**

New Westminster, 0.50 miles north  
 CPR crossing.....Crossover to Waterfront  
 track.

New Westminster, 1 mile north .....Fraser Mill Spur.  
 CPR crossing.

Vancouver .....CPR crossing at Burrard Inlet.

New Westminster, crossover to water front track:  
 GN train or engine movements between main track and water front track over CPR crossing are governed by electric lock at main track switch. Both switches of crossover are lined by operation of main track switch. Instructions for their operation are posted in lock box locked with a switch lock.

New Westminster, Fraser Mill Spur CPR crossing:

Normal position of gates is stop for Great Northern.  
 GN train or engine movements over CPR crossing are governed by manually operated gates electrically locked. Instructions for their operation are posted in lock box locked with a switch lock.

Vancouver, CPR crossing at Burrard Inlet:

Normal position of gates is stop for Great Northern.  
 GN trains or engines shall stop clear of Powell Street until gates are opened and the way is clear for movement across CPR tracks to avoid blocking traffic on Powell Street. Wigwag type crossing signals governing traffic on Powell Street are manually controlled by handle of electric gate lock.

GN trains or engine movements over CPR crossing are governed by manually operated gates electrically locked. Instructions for their operation are posted in lock box locked with a switch lock located at gate adjacent to Powell Street.

28. **RAILROAD CROSSINGS PROTECTED BY GATES.**

Burlington .....Third Subdivision crossing.  
 Normal position is for Second Subdivision.

South Bellingham, 1.14 miles north of.....NP Ry crossing.  
 Normal position is for Great Northern.

Bellingham .....CMST&P RR crossings.  
 1 at Army Street, 1 at Commercial Street, 2 at Pine Street.

Normal position is for Great Northern.

Vancouver, Main Street .....BCE Ry crossing.  
 Normal position is stop for Great Northern.  
 Trains, engines or cars must not be moved over this crossing until a member of the crew is stationed at the crossing to protect traffic on Main Street.

29. **SWITCH INDICATORS.**

Vancouver, indicators are located near switches on each side of main track at the junction of the Burrard Inlet Line and Prior Yard, roundhouse lead and wye tracks about 800 ft. south of Vancouver Jct. First class trains must approach B. I. Line and roundhouse lead switches prepared to stop unless block signals governing movement over these switches indicate proceed and main track is seen to be clear. Yard and engine movements may be made in either direction across main track at this point on the time of delayed first class trains without flag protection provided yellow light is displayed in the indicator. First class trains will be considered delayed when they are more than ten minutes past due out of Vancouver, Vancouver Jct. or Still Creek.

Member of the crew who is to line switches must first operate push button "R" for route desired and hold few seconds. Both trainman and engineer must observe and be governed by indicator before lining switches or fouling main track.

Push buttons and instructions for their operation posted in lock box locked with switch lock.

Vancouver, B. C., Glen Drive Yard, light type indicator located at clearing point of main track switch 840 ft. North of CN Jct. Train or engine movements must stop clear of main track.

Member of crew who is to line switches must first operate push button "R" for route and hold few seconds. Both trainman and engineer must observe and be governed by indicator before lining switch or fouling main track.

Push buttons and instructions for their operation posted in lock box locked with switch lock.

30. Order Board of Transport Commissioners for Canada, trains handling passenger carrying cars which have vestibules at one end only, such cars must when practicable be placed so that non-vestibule ends are not together.

31. Canadian Maintenance of Way flagging Rules 40 through 49 found on pages 216 through 220 in the Consolidated Code are in effect in Canada.

**THIRD SUBDIVISION**

(Anacortes Line)

1. **MAXIMUM PERMISSIBLE SPEED FOR TRAINS.**

Between  
 Rockport and Anacortes ..... 20 MPH

2. **SPEED RESTRICTIONS.**

Bridge 12, Whitney .....	10 MPH
Bridge 52, Concrete .....	5 MPH
Trains handling loaded log cars or high fuel racks.....	15 MPH

3. **ENGINE RESTRICTIONS.**

Engines heavier than 600 H.P. Diesel are prohibited between Burlington and Anacortes.

4. **ENGINE RESTRICTIONS ON INDUSTRY TRACKS.**

Engines not permitted on industry tracks at:  
 Anacortes, Puget Sound Mill & Lumber Co. log dump trestle  
 Anacortes Canning Co. spur track.  
 Sedro-Woolley, Skagit Steel & Irons Works north spur.

5. **CLEARANCE PROVISIONS AND EXCEPTIONS RULE 83(B).**  
 Burlington, Third Subdivision trains must secure clearance.

6. Concrete, water station is closed in emergency, call agent for instructions.

7. **MANUAL INTERLOCKINGS.**

Whitney, one mile west of .....Drawbridge 12.  
 Drawbridge will be left open for boat traffic at all times, except between hours 7:00 AM to 11:00 AM and 3:00 PM to 7:00 PM daily.

## WATCH INSPECTORS

## Cascade Division

Davis Jewelry Store, 4 S. Wenatchee Ave., Wenatchee.  
 F. M. Merryfield, Jeweler, 1707 Hewitt Ave., Everett.  
 Weisfield's, Inc., 414 Pike St., Seattle.  
 Peter Michael, 223 Pine St., Seattle.  
 Roy Davidson, Jeweler, 8524 Greenwood Ave., Seattle.  
 A. T. Crumpacker, Jeweler, 5308 Ballard Ave., Seattle.  
 Mierow's Inc., 1105 Broadway, Tacoma.  
 Benjamin F. Salewsky, Jeweler, Centralia.  
 Kenneth A. Wade, Jeweler, Burlington.  
 Erving H. Easton, Jeweler, 1308 Cornwall Ave., Bellingham.  
 Gifford's Jewellery, Ltd., 515 Columbia St., New Westminster,  
 B. C.  
 W. H. Grassie, Watchmaker & Jeweler, 566 Seymour St., Van-  
 couver, B. C.  
 Weisfield's, Inc., 530 S.W. Washington St., Portland.

## SPEED TABLE

Time Min.	Per Mile Sec.	Miles Per Hour
	40	90.0
	41	87.8
	42	85.7
	43	83.7
	44	81.8
	45	80.0
	46	78.3
	47	76.6
	48	75.0
	49	73.5
	50	72.0
	51	70.6
	52	69.2
	53	67.9
	54	66.6
	55	65.4
	56	64.2
	57	63.1
	58	62.0
	59	61.0
1	—	60.0
1	1	59.0
1	2	58.0
1	3	57.1
1	4	56.2
1	5	55.3
1	6	54.5
1	7	53.7
1	8	52.9
1	9	52.1
1	10	51.4

Time Min.	Per Mile Sec.	Miles Per Hour
1	12	50.0
1	14	48.6
1	16	47.4
1	18	46.1
1	20	45.0
1	22	43.9
1	24	42.9
1	26	41.9
1	28	40.9
1	30	40.0
1	33	38.7
1	36	37.5
1	39	36.4
1	42	35.3
1	45	34.3
1	50	32.7
1	55	31.3
2	—	30.0
2	10	27.7
2	20	25.7
2	30	24.0
2	40	22.5
3	—	20.0
3	30	17.1
4	—	15.0
5	—	12.0
6	—	10.0
7	—	8.5
8	—	7.5
9	—	6.7
10	—	6.0

## BUSINESS TRACKS NOT SHOWN AS STATIONS ON TIME TABLE

Name	Location	Capacity Cars	Switch Opens	Name	Location	Capacity Cars	Switch Opens
<b>First Subdivision</b>				<b>Second Subdivision</b>			
Old Leavenworth.....	0.53 mile east of Leavenworth	67	East	Clark & Buzza Spur.....	0.1 mile south of Still Creek...	2	South
J. R. Sweet Lbr. Co.....	2.0 miles east of Merritt.....	15	East	Overseas Commodity Spur...	0.1 mile south of Still Creek..	7	South
Weyerhaeuser Timber Co. Spur.....	1.0 mile east of Grotto.....	57	West	Golden Kist Spur.....	0.1 mile south of Still Creek, opens south off of Overseas Commodity Spur.....	2	.....
Bar Bee Mill.....	1.0 mile east of Baring.....	23	West	Andrews & George Spur.....	0.14 mile south of Still Creek .	2	North
Halford Rock Spurs.....	1.26 miles west of Baring.....	50	West	Dominion Construction Spur.....	0.43 miles south of Still Creek.	38	South
Index, Galena Mill Industry.....	0.3 mile east of Index.....	42	East	Dominion Bridge Co. Spur.....	1.4 miles south of Still Creek..	58	South
Manufacturers Mineral Spur.....	1.0 mile west of Index.....	8	West	Vancouver Steel Co., Ltd....	2.2 miles south of Still Creek on northward track.....	11	South
Wallace Falls Timber Co.....	1.8 miles east of Gold Bar.....	47	West	Brownsville Connection to C. N. Ry.....	1.6 miles south of Frazer River Jct.....	.....	North
Startup Spur.....	2.0 miles west of Gold Bar.....	22	West	B. C. Peat Products Industry.....	0.85 miles north of Townsend.	12	Both
Fryelands Industry.....	1.9 miles west of Monroe.....	18	Both	Industrial Peat Co., Ltd.....	1.1 mile south of Townsend...	25	Both
Robinson Lettuce Spur.....	2.0 miles west of Monroe.....	56	East	Dakota Creek Spur.....	2.1 miles south of Blaine.....	21	North
McKinnon Spur.....	2.15 miles west of Monroe.....	7	East	Olympic Portland Cement Co. Spur.....	2.0 miles south of Ferndale...	27	North
G. N. Oil Spur.....	1.0 mile west of Everett.....	45	East	Belleville Pit Tracks.....	4.3 miles north of Burlington.	102	North
Standard Oil & Shell Co's Trks.	0.9 mile east of Richmond Beach	90	Both	English Lumber Co.....	1.3 miles south of Fir.....	2	South
Storage Yard-Pit Tracks.....	0.25 mile west of depot Richmond Beach.....	97	Both	Tulalip Army Wye.....	.22 miles south of Kruse Jct.	50	North South
				<b>Third Subdivision</b>			
				Mountview.....	3.7 miles west of Rockport...	16	Both
				Puget Sound Saw Mill Co. Trackage.....	6.5 miles west of Rockport...	35	Both
				Van Horne Spur.....	7.0 miles west of Rockport...	5	East
				Walton Bros. Timber Co.....	3 miles east of Concrete.....	19	Both



