

# SOUTHERN PACIFIC COMPANY

(PACIFIC LINES)

## TIME TABLE

FOR THE

## SAN JOAQUIN DIVISION

# 152



To Take Effect Sunday, April 23, 1933, at 12:01 A. M.

TO OCT. 1, 1933.

PACIFIC STANDARD TIME (120th MERIDIAN)

For the government and information of employees only.

A. T. MERCIER,  
General Manager.

W. B. KIRKLAND,  
Superintendent of Transportation.

L. U. MORRIS,  
Assistant General Manager.

J. D. BRENNAN,  
Superintendent.

FRESNO SUBDIVISION

EASTWARD

WESTWARD

FIRST CLASS

FIRST CLASS

Main time table grid with columns for Capacity of Sidings, Station names (26, 56, 346, 52, 10, 58), Distance from San Francisco, Time Table No. 152 (April 23, 1933), Stations (FRESNO YARD to BAKERSFIELD), and Arrival/Departure times for various train numbers (25, 55, 345, 5, 51, 57).

Summary statistics table with columns for (2.25), (3.15), (0.38), (2.30), (0.28), (0.58), Time over District, Average speed per hour, (2.24), (3.30), (0.30), (0.30), (2.27), (1.00).

Schedule time and train orders for eastward trains at Calwa Tower apply at end of double track, 350 feet west of the tower. Schedule time and train orders for eastward trains at Famoso apply at junction switch of Porterville Line. Schedule time and train orders for trains at Oil Jct. apply at Santa Fe junction switch.

OIL BUFFER SPRING SWITCHES

Fresno Yard, Clinton Ave. beginning of double track.—Normal position for eastward main track. Fresno junction switch Los Banos main track.—Normal position for eastward main track.

ADDITIONAL STATIONS: (Calwa, Midvalley (Spur), Burling (Spur), Alfac (Spur), Quail, Stone (Spur), Dow (Spur))

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS table with columns: Train, At, Receive or Discharge, To (or beyond), From (or beyond), Frequency.

Capacity of Sidings in Car Lengths	FIRST CLASS			Distance from San Francisco	Time Table No. 152 April 23, 1933			Distance from Fresno	FIRST CLASS		
	346	10	58		345	5	57				
	Motor	Santa Fe Motor	Sequoia		Motor	Santa Fe Motor	Sequoia				
	Leave Daily	Leave Daily	Leave Daily		Arrive Daily	Arrive Daily	Arrive Daily				
BKWOTYP YARD	6.05 PM			205.5	TO-R FRESNO		104.3	s 10.20 AM			
I				207.0	TO SUNMAID TOWER A. T. & S. F. Crossing		102.8				
15 P	6.16			208.5	BLOSSOMA		101.3	f 10.08			
Y	6.20			211.8	BUTLER		98.0	f 10.03			
18				213.0	LOCANS		96.8	f			
77 P	6.24			214.6	IVESTA		95.3	f 9.59			
90 Yard WP	f 6.26			215.9	CLOTHO		93.9	f 9.56			
8	s 6.34			219.8	TO SANGER		90.0	s 9.50			
P	f 6.38			222.8	TARN		87.0	f 9.42			
	f 6.42			225.8	FARGO		84.5	f 9.38			
	f 6.46			227.9	LACJAC		81.9	f 9.34			
85 Yard P				228.0	A. T. & S. F. Crossing (Stop)		81.8				
63 Yard WP	s 6.52			229.9	TO REEDLEY		79.9	s 9.28			
P	s 7.01			235.0	TO DINUBA		74.8	s 9.18			
67 P	f			237.2	SMYRNA		72.6	f			
	f 7.08			239.6	MONSON		70.2	f 9.08			
18 P				243.6	A. T. & S. F. Crossing (Stop)		66.2				
14	7.20			246.4	TAURUSA		63.4	f 8.56			
11 P	s 7.27			249.4	TO IVANHOE		60.4	s 8.51			
18 P	f 7.31			252.2	ROCHE		57.6	f 8.46			
74 KWYP Yard	7.33			253.1	CAPLIN		56.7	f 8.44			
8	s 7.45		9.30 AM	257.4	TO-R EXETER		52.4	s 8.35		s 7.45 PM	
124 P Yard	f 7.50		9.35	260.5	BURR		49.3	8.25		7.39	
32 P	s 8.00		s 9.43	264.3	TO LINDSAY		45.5	s 8.20		s 7.33	
7	s 8.08		s 9.50	268.6	TO STRATHMORE		41.2	s 8.10		f 7.23	
14 P	f			270.9	ZANTE		38.9				
42 BKWYP Yard	s 8.30		s 10.00	274.4	PORTERVILLE		35.4	s 8.00		s 7.15	
13	8.34		10.15 AM	274.8	TO-R PORTERVILLE-OLIVE ST.		35.0	7.57		7.00 PM	
25	8.38			276.6	PONOA		33.3	7.54			
17 P	f			278.0	LOIS		31.8	f			
69 KP	f 8.48			282.6	TO TERRA BELLA		27.2	f 7.45			
17 P	f 8.57		9.59 AM	287.1	TO-R DUOOR		22.7	f 7.38		s 1.58 PM	
Spur	f 9.02		10.05	290.0	ORRIS		19.8	f 7.32		1.52	
67 YP	f			291.5	VESTAL		18.3	f		f	
18 P	f 9.10		f 10.13	294.9	RIOGRIVE		14.9	f 7.25		f 1.44	
4 KWTP	f 9.17		f 10.20	299.0	JASMIN		10.8	f 7.19		f 1.37	
	s 9.35 PM		s 10.37 AM	309.8	TO-R FAMOSO		0.0	7.03 AM		1.20 PM	
	Arrive Daily	Arrive Daily	Arrive Daily		(104.3)			Leave Daily	Leave Daily	Leave Daily	

(3.30) (0.38) (0.45) ..... Time over district ..... (3.17) (0.38) (0.45)  
 29.50 35.84 23.20 ..... Average speed per hour ..... 31.76 35.84 23.20

ADDITIONAL STATIONS:

Goldleaf.....209.9	Efco (Spur).....227.6	Stout (Spur).....265.8
Eshel (Spur).....210.6	Dorsey.....250.8	Lisko (Spur).....272.2
Reka.....221.0	Lort (Spur).....254.0	Kurth (Spur).....273.7
Rusconi (Spur).....221.8	Vance.....282.8	Quality (Spur).....295.9
Uva (Spur).....227.1	Worthing.....265.5	

No. 57 head in at east end of siding at Exeter and use siding to junction of Visalia Branch.

TEHACHAPI SUBDIVISION

EASTWARD										Distance from San Francisco	WESTWARD									
SECOND CLASS					FIRST CLASS						Time Table No. 152 April 23, 1933	FIRST CLASS					THIRD CLASS			
Capacity of sidings in car lengths.	812 Freight	818 Freight	810 Freight	814 Freight	56 Tehachapi	2 Santa Fe Passenger	52 San Joaquin	24 Santa Fe Passenger	26 Owl West Coast			55 Tehachapi	9 Santa Fe Passenger	51 San Joaquin	23 Santa Fe Passenger	25 Owl West Coast	817 Freight	811 Freight	815 Freight	
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			
BKWOTYP Yard					11.35 PM		4.33 PM		2.30 AM	312.9	TO-R BAKERSFIELD 0.7	67.8	s 3.40 AM		s 1.43 PM		s 12.01 AM			
KI P	6.30 PM	11.55 AM	6.05 AM	12.01 AM	11.38	5.35 PM	4.36	11.50 AM	2.33	313.6	TO-R KERN JOT. 3.4	67.1	3.36	7.40 AM	1.40	5.25 PM	11.58 PM	4.00 AM	8.55 AM	11.15 PM
No siding P	6.38	12.03 PM	6.13	12.09	11.43	5.40	4.41	11.55	2.38	317.0	MAGUNDEN 3.1	63.6	3.30	7.34	1.35	5.18	11.51	3.51	8.45	11.04
50 P	6.45	12.10	6.20	12.16	f 11.50 PM	5.44	4.45	11.59 AM	2.42	320.1	EDISON 7.8	60.6	f 3.23	7.29	1.31	5.11	11.47	3.44	8.38	10.57
80 IP	7.00	12.25	6.36	12.31	12.01 AM	5.54	4.55	12.10 PM	2.53	327.9	BENA 3.4	52.8	3.09	7.18	1.21	4.55	11.36	3.30	8.22	10.41
85 P	7.16	12.33	6.44	12.39	12.07	5.59	5.00	12.17	3.00	331.3	ILMON 3.9	49.4	3.00	7.13	1.16	4.47	11.30	3.22	8.12	10.31
East 63 West 68 IWP	7.27	12.43	7.04	12.50	s 12.17	6.07	f 5.09	s 12.28	3.09	335.2	TO CALIENTE 3.0	45.5	s 2.51	s 7.04	f 1.08	s 4.38	11.21	3.09	8.00	10.19
82 P	7.36	1.00	7.14	1.00	12.25	6.15	5.17	12.38	3.17	338.2	ALLARD 2.3	42.5	2.43	6.56	1.00	4.29	11.14	2.43	7.50	10.10
West 71 East 71 IWP	7.43	1.07	7.21	1.08	12.31	6.20	5.22	12.44	3.23	340.5	TO BEALVILLE 1.8	40.2	2.38	6.51	12.55	4.23	11.09	2.33	7.43	10.04
71 IP	7.49	1.13	7.37	1.14	12.36	6.24	5.26	12.51	3.28	342.3	CLIFF 3.2	38.4	2.33	6.47	12.51	4.19	11.05	2.27	7.37	9.57
East 73 West 73 P	7.59	1.23	7.45	1.26	12.44	6.31	5.33	12.58	3.35	345.5	ROWEN 3.3	35.2	2.26	6.40	12.44	4.12	10.58	2.17	7.27	9.46
123 IWP House 66	8.20	1.45	8.05	1.41	f 12.54	6.39	f 5.41	1.06	3.45	348.8	TO WOODFORD 3.0	31.9	f 2.19	6.33	f 12.37	4.05	10.50	2.07	7.17	9.37
99 P	8.35	2.00	8.20	1.57	1.02	6.46	5.48	1.15	3.54	351.8	WALONG 2.3	28.9	2.12	6.26	12.30	3.58	10.43	1.57	7.07	9.25
West 69 East 69 IWP	8.45	2.10	8.30	2.07	1.10	6.54	5.54	1.21	4.02	354.1	MARCEL 2.6	26.6	2.07	6.21	12.25	3.52	10.38	1.50	7.00	9.17
81 P	8.59	2.20	8.40	2.27	1.19	7.02	6.02	1.29	4.11	356.7	CABLE 3.9	24.0	2.01	6.15	12.19	3.45	10.32	1.42	6.52	8.59
100 IWP Yard	9.14	2.35	8.55	2.45	f 1.30	f 7.15	s 6.12	s 1.40	f 4.23	360.6	TO-R TEHACHAPI 1.8	20.1	s 1.51	s 6.06	s 12.09	s 3.35	f 10.23	1.30	6.40	8.40
100 YP	9.29	2.50	9.05	3.00	1.36	7.18	6.16	1.43	4.27	362.4	SUMMIT SWITCH 2.6	18.3	1.46	6.03	12.06	3.26	10.19	1.21	6.36	8.35
70 P	9.34	2.55	9.10	3.05	f 1.41	7.22	f 6.21	1.47	4.32	365.0	MONOLITH 3.0	15.7	s 1.41	5.59	f 12.02 PM	3.21	10.14	1.15	6.30	8.29
YP Yard										368.0	ERIO 1.9	12.7								
WP	9.45	3.06	9.21	3.16	1.48	7.29	6.28	1.54	4.39	369.9	CAMERON 4.4	10.8	f 1.33	5.52	11.54 AM	3.14	10.06	1.00	6.15	8.10
78 P	10.00	3.21	9.36	3.31	1.57	7.37	6.36	2.02	4.47	374.3	WARREN 6.4	6.4	1.23	5.42	11.44	3.03	9.54	12.45	6.00	7.55
Yard BKWOTYP	10.25 PM	3.45 PM	10.00 AM	3.55 AM	s 2.10 AM	s 7.50 PM	s 6.49 PM	s 2.15 PM	s 5.00 AM	380.7	TO-R MOJAVE	0.0	1.06 AM	5.25 AM	11.27 AM	2.45 PM	9.34 PM	12.25 AM	5.40 AM	7.30 PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(67.8)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily

(3.55)	(3.50)	(3.55)	(3.54)	(2.35)	(2.15)	(2.16)	(2.25)	(2.30)	..... Time over District .....	(2.34)	(2.15)	(2.16)	(2.40)	(2.27)	(3.35)	(3.15)	(3.45)
17.13	17.50	17.13	17.17	26.24	29.82	29.91	27.76	27.12	..... Average speed per hour .....	26.25	29.82	29.91	25.16	27.67	18.72	20.64	17.89

Schedule time and train orders at Tehachapi apply at end of double track.

OIL BUFFER SPRING SWITCHES

- Bena at end of double track.—Normal position for westward main track.
- Ilimon at west end.—Normal position for main track.
- Allard at west end.—Normal position for main track.
- Rowen at west end.—Normal position for main track.
- Walong at west end.—Normal position for main track.
- Cable at west end.—Normal position for main track.
- Tehachapi at west end.—Normal position for main track.
- Summit Switch at east end.—Normal position for eastward main track.

MOJAVE SUBDIVISION

EASTWARD										WESTWARD																	
SECOND CLASS					FIRST CLASS					Distance from San Francisco	Time Table No. 152 April 23, 1933										Distance from Saugus	FIRST CLASS			THIRD CLASS		
Capacity of sidings in car lengths.		812 Freight	818 Freight	814 Freight	52 San Joaquin	26 Owl West Coast	56 Tehachapi	51 San Joaquin	25 Owl West Coast		55 Tehachapi	811 Freight	815 Freight	817 Freight													
		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily														
BKWOTYP Yard		11.25 PM	4.50 PM	4.40 AM	6.52 PM	5.10 AM	2.30 AM	380.7	TO-R MOJAVE	69.9	s 11.24 AM	s 9.24 PM	s 12.51 AM	5.30 AM	6.45 PM	12.10 AM											
84 P		11.35	5.00	4.50	6.58	5.16	2.37	384.8	4.1 FLETA	65.8	11.16	9.16	12.43	5.16	6.30	11.59 PM											
85 P		11.40	5.05	4.57	7.01	5.21	2.41	387.3	2.5 GLOSTER	63.3	11.13	9.12	12.39	4.57	6.22	11.54											
81 P		11.46	5.11	5.10	7.05	5.26	2.46	390.4	3.1 ANSEL	60.2	11.09	9.07	12.34	4.50	6.15	11.46											
80 P		11.53 PM	5.18	5.20	7.10	5.31	f 2.53	394.3	3.9 ROSAMOND	56.3	11.04	9.01	f 12.28	4.43	6.08	11.33											
50 P		12.19 AM	5.28	5.30	7.17	5.39	3.02	399.9	5.6 OBAN	50.7	10.57	8.53	12.19	4.33	5.58	11.23											
70 KWP Yard		12.30	5.48	5.47	s 7.25	5.47	s 3.13	405.5	5.6 TO-R LANCASTER	45.1	s 10.49	f 8.45	s 12.10 AM	4.23	5.48	11.13											
50 P		12.43	6.00	6.05	7.32	5.53	3.20	409.8	4.3 DENIS	40.8	10.42	8.34	11.57 PM	4.15	5.32	11.05											
68 WOY P		12.51	6.08	6.28	f 7.38	5.59	s 3.29	413.8	4.0 TO PALMDALE	36.8	f 10.37	8.29	s 11.50	4.07	5.24	10.57											
90 P		12.58	6.15	6.35	7.42	6.03	3.35	416.3	2.5 HAROLD	34.3	10.32	8.25	11.41	4.01	5.15	10.51											
East 94 Yard West 94 YP		1.25	6.45	7.00	7.54	6.15	3.48	420.5	4.3 VINCENT	30.1	10.23	8.16	11.31	3.48	5.00	10.38											
84 P		1.40	6.59	7.19	8.06	6.25	3.58	425.0	4.5 PARIS	25.6	10.13	8.06	11.20	3.21	4.28	10.13											
32 P		1.45	7.03	7.23			f 4.01	426.1	1.1 ACTON	24.5			f 11.17		4.20	10.09											
95 WP		2.03	7.21	7.41	8.18	6.34	f 4.09	429.0	2.9 RAVENNA	21.6	10.04	7.57	f 11.09	3.09	4.10	9.55											
82 P		2.20	7.45	7.58	8.31	6.46	4.23	434.6	5.6 RUSS	16.0	9.52	7.45	10.55	2.52	3.18	9.35											
17 Spur								436.0	1.4 ALPINE	14.6																	
101 WP		2.39	8.05	8.11	8.41	6.55	f 4.34	438.8	2.8 TO LANG	11.8	9.43	7.36	f 10.44	2.39	3.05	9.10											
85 P		2.53	8.18	8.24	8.52	7.05	4.45	443.1	4.3 HUMPHREYS	7.5			f 10.33	2.27	2.29	8.52											
81 P		3.05	8.31	8.36	9.02	7.15	4.55	446.9	3.8 HONBY	3.7	9.25	7.18	10.24	2.16	2.05	8.31											
W 80 F. 73 BKWOY Yard P		3.20 AM	8.55 PM	8.50 AM	f 9.12 PM	f 7.25 AM	s 5.05 AM	450.6	3.7 TO-R SAUGUS	0.0	9.17 AM	7.10 PM	10.15 PM	2.05 AM	1.29 PM	8.20 PM											
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		69.9		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily											

(3.55)	(4.05)	(4.10)	(2.20)	(2.15)	(2.35)	Time over District.....	(2.07)	(2.14)	(2.36)	(3.25)	(5.16)	(3.50)
17.84	17.11	16.77	29.95	31.06	27.05	Average speed per hour.....	33.02	31.29	26.38	20.45	13.37	18.23

At Saugus: San Joaquin Division time table schedules and train orders apply at the east switch of the eastward siding.  
 Los Angeles Division time table schedules and train orders apply at the Junction switch of the Santa Paula Line.  
 The main track at Saugus between the Junction switch and east switch of the eastward siding may be used by any train, if track is known to be clear. Care must be taken not to delay first-class trains

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS					
Train	At	Receive or Discharge	To (or beyond)	From (or beyond)	Frequency
26	Lancaster	{Receive and Discharge Receive}	Los Angeles Fresno	Lathrop	Daily
25	Saugus				

FRESNO SUBDIVISION

EASTWARD

FIRST CLASS

58

Sequoia

Leave Daily

Distance from San Francisco

Time Table No. 152

April 23, 1933

Kerman and Visalia Branches

STATIONS

Distance from Exeter

FIRST CLASS

57

Sequoia

Arrive Daily

WESTWARD

EASTWARD

Distance from San Francisco

Time Table No. 152

April 23, 1933

Riverdale Branch

STATIONS

WESTWARD

Distance from Hardwick

Capacity of Sidings in Car Lengths

48 KWYP

59

39

48

39

11

47 Yard

East 40 WYP West 35 Yard

I

66 P Yard

Spur

54

94 BKWOYP Yard

41 P

P

Spur

7 P

P

74 KWYP

(0.52) 20.65

..... Time over District .....

..... Average speed per hour .....

(0.55) 19.52

Capacity of sidings in car lengths

Y

39

56

7

Spur 1

25

20

7

Spur 4

Spur 3

Spur

Spur 11

52 Yard

181.9

187.2

191.7

194.9

198.7

199.0

206.2

209.4

214.6

217.2

219.2

221.0

221.8

223.5

224.2

R

INGLE

TRANQUILITY

SAN JOAQUIN

CALDWELL

NARES

HELM

BURREL

BENDER

RIVERDALE

ROBINSON

HUB

LATON & WESTERN RY. CROSSING (Stop)

LYNN

HASSET

HARDWICK

..... Time over District .....

..... Average speed per hour .....

EASTWARD

Distance from San Francisco

Time Table No. 152

April 23, 1933

Coalinga Branch

STATIONS

WESTWARD

Distance from Leroy

Capacity of sidings in car lengths

East 40 WYP West 35 Yard

Spur

57 P

14 Spur

65 YP

5 P

48 P

39 P

14 P

38 FP

71 KYP Yard

16 Spur

229.1

231.2

233.9

235.4

236.5

239.4

246.1

252.7

260.0

266.7

268.4

269.9

272.0

TO-R

ARMONA

ORION

LEMOORE

HEINLEN

ROSSI

LETHENT

TO

WESTHAVEN

HURON

TURK

ORA

TO-R

COALINGA

ORUMP

LEROY

..... Time over District .....

..... Average speed per hour .....

FRESNO SUBDIVISION

Capacity of Sidings in Car Lengths	EASTWARD			Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Friant	WESTWARD			
					Clovis Branch						
					STATIONS						
Yard BKWOTYP				205.5	TO-R	FRESNO 1.6	24.4				
I				207.1		FRESNO TOWER A. T. & S. F. CROSSING 2.3	22.8				
Spur				209.4		BARTON 2.2	20.5				
Spur 18				211.6		GRANZ 0.2	18.3				
Spur 44				211.8		MALTERMORO 0.3	18.1				
				212.1		NAVIN 0.8	17.8				
10				212.9		LAS PALMAS 0.3	17.0				
				213.2		FRESNO INTERURBAN RY. CROSSING 0.7	16.7				
9				213.9		VANRIS 1.0	16.0				
27				214.9		TARPEY 1.2	15.0				
17				216.1		MELVIN 1.3	13.8				
37 W				217.4	TO	OLOVIS 1.1	12.5				
7				218.5		GLORIETTA 2.4	11.4				
67 K				220.9	R	PINEDALE JCT. 2.0	9.0				
38				222.9		GORDON 0.7	7.0				
31				223.6		EL PRADO 2.1	6.3				
				225.7		ROCKFIELD 0.3	4.2				
				226.0		GAND 3.9	3.9				
63 KWT Yard				229.9	TO-R	FRIANT	0.0				
						(24.4)					

.....Time over District.....  
.....Average speed per hour.....

Capacity of Sidings in Car Lengths	EASTWARD			Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Springville	WESTWARD			
					Springville Branch						
					STATIONS						
Yard 42 BKWYP				274.8	TO-R	PORTERVILLE-OLIVE ST. 0.8	15.9				
10 Spur				275.6		A. T. & S. F. CROSSING (Stop) 2.5	15.1				
				278.1		ADOBE 0.5	12.6				
15				278.6		PERNU JOT. 1.4	12.1				
Spur				280.0		WORTH 1.6	10.7				
26				281.6		MAGNESITE JOT. 0.8	9.1				
				282.4		SUCCESS 5.7	8.3				
17 Y				288.1		CLAVIOLE 2.6	2.6				
				290.7		SPRINGVILLE	0.0				
						(15.9)					

.....Time over District.....  
.....Average speed per hour.....

Capacity of Sidings in Car Lengths	EASTWARD			Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Pernu	WESTWARD			
					Pernu Branch						
					STATIONS						
				278.6		PERNU JOT. 0.7	1.3				
Spur				279.3		TANDY 0.6	0.6				
Spur				279.9		PERNU	0.0				
						(1.3)					

.....Time over District.....  
.....Average speed per hour.....

Capacity of Sidings in Car Lengths	EASTWARD			Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Stratford	WESTWARD			
					Stratford Branch						
					STATIONS						
41 Y				244.1	TO-R	STRATFORD 4.2	0.0				
39				239.9		CUNEO 3.4	4.2				
65 YP				236.5		ROSSI	7.6				
						(7.6)					

.....Time over District.....  
.....Average speed per hour.....

Capacity of Sidings in Car Lengths	EASTWARD			Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Jovista	WESTWARD			
					Richgrove Branch						
					STATIONS						
72				294.9		RICHGROVE 2.7	4.1				
50				297.6		TROCHA 1.4	1.4				
18				299.0		JOVISTA	0.0				
						(4.1)					

.....Time over District.....  
.....Average speed per hour.....

FRESNO SUBDIVISION

EASTWARD				WESTWARD			
Capacity of Sidings in Car Lengths	Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Olig	McKittrick Branch		
		STATIONS					
		KI	813.6		TO-R KERN JCT. 1.7	49.1	
P	815.3	BAKERSFIELD CORREALS 1.4	47.4				
15	816.7	STRADER 2.1	46.0				
43 P	818.8	WIBLE ORCHARD 1.7	43.9				
	820.5	VENOLA 2.1	42.2				
54 YP	822.6	R GOSFORD 5.8	40.1				
46 WP	828.4	STEVENS 2.3	34.3				
Spur 3	830.7	STRAND 5.4	32.0				
	836.1	RIO BRAVO 6.7	26.6				
	842.8	BOWERBANK 2.6	19.9				
	845.4	KILOWATT 0.9	17.3				
91	846.3	TO BUTTOWILLOW 4.2	16.4				
64	850.5	LOKERN 10.1	12.2				
30 Y	860.6	R McKITTRICK 2.1	2.1				
	862.7	R OLIG	0.0				
		(49.1)					

.....Time over District.....  
 .....Average speed per hour.....

MOJAVE SUBDIVISION

EASTWARD				WESTWARD			
Capacity of Sidings in Car Lengths	Distance from San Francisco	Time Table No. 152 April 23, 1933		Distance from Owensyo	Owenyo Branch		
		STATIONS					
		BKWOTYP Yard	380.7		TO-R MOJAVE 1.3	143.5	12.30 AM
45	380.8	CHAFFEE 3.2	142.2	f 12.20			
48	384.0	OAMBIO 4.3	139.0	f 12.05 AM			
47	388.3	TRESCAPE 4.6	134.7	f 11.55 PM			
48	392.9	NEURALIA 4.4	130.1	f 11.45			
48	397.3	CINCO 5.2	125.7	f 11.30			
East 48 West 48	402.5	CANTIL 2.8	120.5	s 11.15			
Spur 15	405.3	GYP SITE 2.2	117.7	f			
39	407.5	OENEDA 1.0	115.5	f 10.50			
2	408.5	SALTDAL 2.1	114.5	f 10.48			
	410.6	TOBY 1.6	112.4	f			
East 48 West 70	412.2	GARLOOK 4.2	110.8	f 10.40			
48	416.4	GOLER 4.1	106.6	f 10.31			
48	420.5	RAND 4.1	102.5	f 10.22			
48	424.6	TEAGLE 3.8	98.4	f 10.13			
48 Yard	428.4	TO-R SEARLES 4.4	94.6	s 10.05			
48	432.8	RADEMAOCHER 5.5	90.2	f 9.35			
52	438.3	CODE 4.1	84.7	f 9.20			
48	442.4	TERESE 4.8	80.6	f 9.10			
48	447.2	INYOKERN 4.5	75.8	s 8.55			
49 W	451.7	LELITER 4.6	71.3	f 8.40			
48	456.3	BROWN 4.4	66.7	s 8.30			
48	460.7	LINNIE 3.6	62.3	f 8.15			
48	464.3	NARKA 4.0	58.7	f 8.05			
47	468.3	LITTLE LAKE 3.2	54.7	s 7.55			
48 Y	471.5	OOSO 4.1	51.5	f 7.40			
48	475.6	SYKES 4.3	47.4	f 7.30			
48	479.9	TALUS 4.2	43.1	f 7.20			
47 W	484.1	HAIWEE 4.4	38.9	f 7.10			
52	488.5	LOCO 4.8	34.5	f 7.00			
48	493.3	OLANCHA 4.4	29.7	f 6.50			
52	497.7	CARTAGO 4.6	25.3	s 6.35			
52	502.3	MONACHEE 4.0	20.7	f 6.01			
52	506.3	BRIER 2.9	16.7	f 5.54			
	509.2	BARTLETT 1.1	13.8	f			
52	510.3	SKINNER 4.0	12.7	f 5.47			
52 W	514.3	DIAZ 4.5	8.7	f 5.40			
East 56 West 52	518.8	LONE PINE 4.2	4.2	s 5.30			
37 KOY Yard	523.0	TO-R OWENYO	0.0	5.15 PM			
		(143.5)		Leave Daily Ex. Sunday			

(6.50) .....Time over District..... (7.15)  
 21.00 .....Average speed per hour..... 19.79



THE FOLLOWING APPLICATIONS AND ADDITIONS ARE MADE TO THE BOOK OF RULES

**RULE 2.** The following are designated Watch Inspectors:

S. A. Pope, Manager of Time Service, 65 Market Street, San Francisco	
Fresno, 1205 Fullton St. .... Bert Fuller	Los Angeles, 445 So. Spring St.
Porterville..... Frank Haener	G. D. Davidson Co.
Hanford..... Hanford Jewelry Co.	Los Angeles, 301 O. T. Johnson Bldg.
Bakersfield, 902 Baker St.	Newton Moore
..... Chas. E. Baab	Los Angeles, 2708 No. Broadway
Coalinga..... A. Rees	O. H. Patzer
Visalia..... C. T. Kathe	Exeter..... W. B. Adams

**RULE 3.** Conductors on eastward Santa Fe trains originating at Bakersfield will show on reverse side of Kern Jct. register ticket watch comparison made at Santa Fe station Bakersfield, also comparison with enginemen.

**RULE 14 (d).** As specified below, four long and one short sounds will be indication that flagman may return from west as prescribed by Rule 99.

Famoso.....	Trains on Exeter main track.
Ducor.....	Trains on Minkler-Southern Branch.
Exeter.....	Trains on Visalia Branch.
Hardwick.....	Trains on Riverdale Branch.
Ingle.....	Trains on Riverdale Branch.
Goshen Jct.....	Trains on Kerman Branch.

**RULE 14 (e).** As specified below, six long sounds will be indication that flagman may return from east as prescribed by Rule 99.

Fresno.....	Trains on Exeter main track and Clovis Branch.
Porterville.....	Trains on Springville Branch.
Rossi.....	Trains on Stratford Branch.
Goshen Junction.....	Trains on Visalia Branch.
Ingle.....	Trains on Riverdale Branch.
Richgrove.....	Trains on Richgrove Branch.
Magunden.....	Trains on Arvin Branch.
Mojave.....	Trains on Owenyo Branch.

**RULE S-72.** Westward trains are superior to trains of the same class in the opposite direction.

**RULE 83.** Train register is not maintained at Calwa Tower. If positive observation check be made between Fresno and Calwa Tower, it will apply at end of double track.

If a prior check has been obtained or a positive observation check made between Bakersfield and Bena, it will apply at the end of double track at Bena. Between these points trains will approach each other at a rate of speed which will enable positive check to be made. In case of doubt, a check must be obtained from Train Dispatcher before entering single track.

Rule 14-K must be applied when approaching trains on opposite track.

When helper engineers identify first-class trains on the opposite track between Mojave and Tehachapi, it will not be necessary to obtain a check of such trains before making movements in the same direction from Eric or Summit Switch.

**RULE 83 (A).** At the following stations, only the trains indicated will register:

Fresno.....	} ..... Trains originating and terminating.
Oil Jct.....	
Searles.....	
Lancaster.....	} ..... Trains to and from Exeter main track.
Famoso.....	
Tehachapi.....	First and second class trains, and trains originating and terminating.
Goshen Jct.....	No. 57, No. 58 and trains to and from Visalia and Kerman Branches.

Extras register at Porterville Olive St., Exeter, Goshen Jct. Armona and Friant.

**RULE 83 (B).** At open train order offices trains may register by ticket as follows:

Kern Jct.....	Santa Fe trains, S. P. first class trains and Westward light engines.
Tehachapi.....	First and second class trains.
Porterville Olive St.....	First class trains.
Famoso.....	Trains to and from Exeter Main Track.

Operator Kern Jct. will report arrival and departure Santa Fe first-class trains to Operator Bakersfield, who will enter same on register.

Operator Kern Jct. will report arrival and departure of all scheduled trains to operator Santa Fe station Bakersfield, who will enter same on Southern Pacific register located at Santa Fe station Bakersfield.

**RULE 83 (D).** Westward Santa Fe trains via Southern Pacific will get clearance and train orders from operator Santa Fe station Bakersfield authorizing movement from Oil Junction westward.

Eastward Clovis Branch trains destined to Fresno Interurban secure train orders or clearance from operator at Fresno Tower, authorizing movement over Fresno Interurban.

No. 10 may leave Ducor without clearance when operator not on duty.

Conductors and Engineers from Riverdale Branch to Western Division, in addition to orders and clearance signed by Chief Dispatcher of Western Division, authorizing movement from Ingle to Kerman on Los Banos subdivision of Western Division, will also in all cases procure from operator at the same point where such orders and clearances are issued, clearance signed by Chief Dispatcher of the San Joaquin Division.

Trains via Visalia and Kerman branches must obtain clearance card before leaving Goshen Jct.

**RULE 93. YARD LIMITS:** Are defined by yard limit signs at the following stations:

Fresno	Bakersfield	Tehachapi
Goshen Jct.	Visalia	Summit Switch
Coalinga	Exeter	Eric
Armona	Lindsay	Mojave
Hardwick	Porterville Olive St.	Searles
Hanford	Dinuba	Owenyo
Sanger	Kingsburg	Saugus
Reedley	Friant	Selma
Delano		Lancaster
Tulare		Vincent

Fresno Yard: Limits are defined by yard limit signs at the following points:

Kerman Line.....	Mile Post 206.32.
Merced Line.....	Mile Post 199.08.
Bakersfield Line.....	Mile Post 210.81.
Exeter Main Track.....	Mile Post 208.15.
Clovis Branch.....	Mile Post 209.6.

Between Calwa Tower and Clinton Ave. trains and yard engines may move with current of traffic irrespective of time table authority, using every precaution to avoid delaying passenger trains.

Trains or engines will not move against current of traffic on double track between Divisadero Street and Clinton Avenue and between Cherry Avenue and Calwa Tower, Fresno, except on authority of Yardmaster. When making movements against current of traffic, trains or engines must be preceded by flagman over railway and street crossings at grade where wigwags are installed, protecting these crossings during movements.

That section of track in Fresno between Tuolumne Street and Ventura Avenue is not protected by block signals. Be governed by third paragraph Rule 93.

Oil spring switch located at junction switch Los Banos main track and eastward main track Fresno will be normally lined for eastward main track movements and will operate automatically for eastward trains entering eastward main track from Los Banos main track. Trains should not move from Los Banos main track with color light signal 2046 displaying stop except as provided by the rules.

Trains arriving and departing via Los Banos line at Fresno will receive proceed signal from herder at Divisadero Street, green flag by day and green light by night. Oil buffer spring switch will have to be operated manually for westward movements to the Los Banos main track.

Electric switch lamp connected to Los Banos main track junction switch, Fresno, located between main tracks, displays indications for westward trains only. Red light will be displayed when switch is lined for eastward main track and green when switch is lined for westward movement to Los Banos main track.

Trains entering or leaving through passenger station tracks designated—Main track—Depot No. 1—Depot No. 2—Depot No. 3—Depot No. 4—Back lead—will be governed by the following:

Westward trains or engines may proceed on signal from yardman at either Kern or Merced Street; eastward trains or engines may proceed on the above mentioned tracks on signal from yardman at either Merced or Kern Street. If no signal is received from yardman, train or engine must stop and be preceded by flagman before again proceeding, all such movements to be made with caution.

**Mojave Yard:** First class trains may pass through Mojave Yard without hand signals, providing switches are properly lined for such movement, and will move with caution irrespective of timetable superiority between Signals 3802 and 3811. Inferior trains entering or leaving Mojave Yard must receive green signal unless Terminal Trainmaster or his subordinate notifies train that they may enter or leave without green signal.

Trains leaving east end of yard may proceed without signal from herder provided they are notified switches are properly lined.

Trains from Owenyo Branch stop before fouling main track or blocking highway crossing regardless of position of derailer or signals received.

Unless Terminal Trainmaster or his subordinate instruct otherwise, crossover movement from Owenyo Branch to Mojave yard will be made as follows: First throw derailer on Owenyo Branch, second throw trailing point switch on eastward main track, third crossover switch on westward main track, fourth Owenyo Branch switch—then wait five minutes before proceeding. Be governed by Rule 93.

Following code of signals will govern eastward trains entering yard:

Southern Pacific:	
Passenger trains.....	One long.
Freight trains.....	One short, one long, one short.

Santa Fe:

Passenger trains.....	One long, one short.
Freight trains.....	One long, one short, one long.

**RULE D 97 (A).** On double track between Tehachapi and Summit Switch trains may run extra, moving with the current of traffic without running orders.

**RULE 98. RAILROAD CROSSINGS AT GRADE, NOT INTERLOCKED**

- A. T. & S. F. Railway, 744 feet east of Lacjac, STOP.
- A. T. & S. F. Railway, 14718 feet west of Taurusa, STOP.
- A. T. & S. F. Railway, 602 feet east of Visalia, STOP, and not pass over crossing without receiving proceed signal from flagman, who must precede train.
- Laton & Western Railway, 1743 feet west of Lillis, STOP.
- Laton & Western Railway, 4129 feet west of Lynn, STOP.
- A. T. & S. F. Railway (on Springville Branch), 4515 feet east of Porterville, STOP.
- Fresno Interurban Railway, 1771 feet east of Las Palmas.

**RULE 104 (A). DERAILERS IN MAIN TRACK:**

- McKittrick. East wye switch is spring switch and serves as derail.
- Porterville. 310 feet east of junction switch on Springville Branch.
- Magnesite Branch. 1100 feet east of Bridge 283-F.
- Mojave. 230 feet east of junction switch on Owenyo Branch.
- Famoso. 168 feet west of junction switch.

**RULE 221.** Light will not be displayed in train order signals on McKittrick, Clovis, Coalinga, Kerman, Richgrove, Riverdale, Springville, Stratford and Visalia branches, except when train orders are to be delivered.

Trains will not be required to obtain clearance card at Kern Jct. and Bakersfield except when such trains originate or receive orders at these stations.

**Rule 221 (A):** Rule 221 (A) is so interpreted as to make it unnecessary for dispatchers to O. K. a clearance and operators to transmit the address and order numbers from clearance to the train dispatcher, unless requested to do so by train dispatchers, nor will they complete that portion of clearance (Form CS-2643) reading:

"OK at.....M..... Chief Train Dispatcher," all provided that said orders affect movement of a train wholly within block system or signal dispatching limits.

If the orders affect movement, either wholly or in part, outside of the block system or signal dispatching limits, operators must repeat address and order numbers and obtain dispatcher's OK before the orders are delivered.

**RULE 509.** When a block signal in advance of facing point oil buffer spring switch indicates stop, careful examination of switch must be made before passing over it.

**RULE 628.** At Kern Jct. only, Rule 628 is modified to permit movement, without stopping, of helper cuts only, past interlocking signals in stop position, provided yellow signal is received from the towerman in tower or on ground, and helper engineer sees that track is properly lined for movement to be made.

**RULE 827.** Freight trains must not run more than 40 miles without a stop for inspection: Except run may be made by westward freight trains Ravenna to Mojave, also from Bakersfield to Tipton and Tipton to Fresno or vice versa without stopping for train inspection when in the judgment of the conductor it is safe to do so. Inspection will be made at any intermediate stops.

**RULE 869.** Trainmen will ride on top of trains through yards, entering and leaving terminals, through interlocking plants, also Vincent to Saugus, Vincent to Palmdale, Summit Switch to Mojave, Summit Switch to Ilmon, Searles to Cantil, McKittrick to Lokern and at other places as instructed by conductor.

**RULE 880.** Engineers who have had less than 610 days' actual experience as engineers in freight service and less than 60 days' experience on the division must not be used in passenger service.

When engineers with less than 610 days' experience and less than 60 days' service as engineer on the district and firemen of less than one year's experience stand to help or doublehead a passenger train, they must handle the engine next to train, the experienced men to handle the leading engine.

## TRAIN AND AIR INSPECTION

Rule 11 of The Rules and Regulations Governing Care and Operation of Air Brakes and Air Signal Apparatus. This rule must be complied with by trainmen at points where no car inspectors are on duty, and engine or engine crew or train crew is changed on a freight train. In addition the numbers of all cars found with inoperative brakes must be shown on Form Tem. 1846 and such cars switched to the rear next ahead of the caboose. If it is necessary to switch any cars to the rear Rule 17 must be complied with.

Rule 16 of the Rules and Regulations Governing Care and Operation, etc.

**Passenger Trains:** Make running air brake test at Summit Switch and between initial and crossover switch at Vincent. Not necessary to make running test on passenger trains leaving Mojave that have not had the continuity of the brake pipe broken. Eastward Santa Fe passenger trains leaving Kern Jct. will not make running test. Within limits of Fresno Yard, running air brake test will be made only when leaving Fresno.

**Freight Trains:** Freight trains not stopping at Summit Switch will make running air brake test between wye switches as follows: While working steam, engineer will make a reduction of approximately 7 pounds, waiting for slack to adjust itself and then add about 3 pounds, making total reduction of 10 pounds before releasing.

Conductor will note reduction on caboose gauge and following build up in pressure when brakes are released, then give proceed signal which will be relayed by other trainmen from their portion of the train, providing they note retainers releasing in their vicinity.

If conductor is on the head end, the rear brakeman is held responsible for such observance of the gauge as will insure against danger from closed angle cock or low pressure.

When such observance indicates danger, take every needed precaution as the circumstances warrant.

If releasing of brakes cannot be made at a greater speed than 15 miles per hour, stop and make rear end test.

Whenever plug tests or running tests, whichever are required under the rules, have been made on eastward trains at Tehachapi, it will not be necessary to make running tests on such trains not stopping at Summit Switch.

Westward freight trains that do not have helpers to cut out at Vincent and do not stop there for other operating reasons, will turn up the retaining valves on the first ten cars behind the engine at the east distant signal approaching Vincent, and will make air brake running test between passing track switches as follows:

While working steam and not allowing driver brakes to apply, follow the same procedure as outlined in instructions relative to making the freight train running test at Summit Switch, with the exception that a release may be made at a speed not slower than 8 miles per hour. If train has to stop for any reason, or if speed of at least 8 miles per hour cannot be made at time release is desired, standing air brake test as per Rule 17 of the air brake rules will be made.

On Eastward freight trains not having helpers to cut out or required to stop at Vincent for operating reasons, they will follow the same procedure as outlined in next paragraph above, except that one retaining valve for each 115 M's contained in train will be used. These retaining valves must be turned up at or near west distant signal, the retaining valves on head portion of train to be turned up first.

Rule 17 of The Rules and Regulations Governing Care and Operation of Air Brake and Air Signal Apparatus.

Rear end test will be made in accordance with Rules 17 and 17-A of the Air Brake Rules, and this test will also be made at the following places under the conditions hereinafter stated:

Vincent.....Freight trains stopping.  
Summit Switch.....All trains stopping.  
Mojave.....Freight trains not originating.

Leading engineer will not signal for rear end test on trains having helpers until such helpers indicate by one blast of the whistle that the train is ready for the test.

Retainers will be used on passenger trains as follows:

Westward trains.....Tehachapi to Caliente—All retainers

Retainers on all head end cars of eastward passenger trains (except Train No. 56) will be turned up at Summit Switch, remainder of retainers to be turned up at Cameron without stopping, all retainers being used to Mojave. When retainers are thus used speed of trains must not exceed 45 miles per hour.

Retainers on all head end cars on Train No. 56 will be turned up at Tehachapi, remainder of retainers to be turned up at Cameron without stopping, all retainers being used to Mojave. When retainers are thus used speed of train must not exceed 45 miles per hour.

On trains having not to exceed two head end cars available retainers will be used Cameron to Mojave and Tehachapi to Caliente.

Retainers will be used on freight trains as follows:

Eastward trains.....Cameron to Mojave.  
Eastward trains.....Vincent to Alpine.  
Westward trains.....Vincent to Harold.  
Westward trains.....Tehachapi to Tunnel One.  
Westward trains.....McKittrick to Lokern.

Eastward Southern Pacific freight trains stopping at Summit Switch will turn up retainers there, and if train brakes are applied a speed of 20 miles per hour must not be exceeded Summit Switch to one mile east of Cameron.

At the following stations freight trains descending grade between Caliente and Lang will stop 10 minutes to allow heat to equalize in wheels and make inspection:

Ravenna.

Marcel Rowen.—Or in making other stops, inspection may be made provided initial run is not to exceed 8 miles, succeeding runs not to exceed 10 miles.

A continuous run of 10 miles will not be made where the run from the last inspection point was less than 7 miles.

Warren.

Owenyo Branch.—Rand.

On freight trains descending grade Tehachapi to Caliente, Cameron to Mojave and Vincent to Lang, one pressure retaining valve must be used for each 115 M's in train. These retaining valves to be used solid on head end of train.

Descending grade between Vincent and Harold, use ten retaining valves on head end of train.

Retainers will be used on other districts when in judgment of enginemen it is deemed necessary.

Where retainers are used the rate of speed of freight trains on any grade of over one per cent will not exceed 25 miles per hour, and on grades of this character MORE THAN FIVE MILES LONG, FOR THE FIRST FIVE MILES THE TIME CONSUMED IN TRAVELING ONE MILE SHALL NOT BE LESS THAN THREE MINUTES. The above maximum speed restriction will not affect the speed on heavier grades and other locations, where the maximum is now provided. Retainers on eastward freight trains entering Mojave must not be turned down until train comes to rest on designated tracks.

Freight trains taking siding where it is necessary for them to open their own switch, and where necessary to apply train (automatic) brakes, stop and allow sufficient time to insure release of all brakes.

Conductor report to Superintendent, by wire, any failure to properly control train by air brakes and deliver to Car Inspector at first terminal list showing tonnage of each car in train. Car Inspector will add to list the piston travel of each car in train, as shown by test made before road engine is cut off, also result of three-minute test of all retainers. The list will then be forwarded to Superintendent by first mail.

The maximum tonnage per operative brake between Caliente and Mojave is 115 Ms and between Mojave and Saugus 120 Ms.

Rear brakeman will open valve on rear of steam heat line and valve must be closed on engine at yard limit boards—Fresno, Bakersfield and Mojave. At other points: Station one mile board. Exception, Mojave trains not requiring disconnection of train line.

## AUTOMATIC BLOCK SYSTEM

When the light signals located at either end of siding at Warren indicate stop, train entering siding will be preceded by a flagman.

When block signals located at end of double track at Tehachapi indicate stop, in addition to complying with rule 509; be governed by rules 628 and 663.

Fresno. West switch and derail of running track, Fresno Yard near Biola Junction, and the Biola main line Junction switch and derail will be hand operated by using the switch levers located on side of dual switch machines.

Automatic signals will govern train movements: trains entering main track from Biola Branch and from the west end of No. 1 track, Fresno Yard, will stop at signals which will indicate stop until derails and switches have been properly lined for route desired when signals will indicate proceed.

Trains may use No. 1 running track between Clinton Avenue and Biola Junction. Interlocking switch, No. 2 track, west of Ashland Avenue, may be hand operated by using switch lever located on side of dual switch machine.

This places Biola Branch in operation from Biola Junction end.

Dwarf light signal 2022, located just east of Clinton Avenue, will govern movements of eastward trains from drill track to eastward main track through both crossovers. The normal indication of this signal will be dark with crossover switches lined normal for all tracks. When either switch of crossover east of Clinton Avenue is reversed for crossover movement, signal will indicate stop and both crossovers must be lined for movement from drill track to eastward main track before signal will display proceed indication.

A train must not move from drill track through crossovers to eastward main track with dwarf signal displaying stop, except as provided by the rules.

Westward main track high Light Type Signal 2045, located 521 feet east of Los Banos main track Junction Switch, Fresno, will govern westward main track movements only and light type route signal mounted on mast of this signal will govern movements from westward main track through crossover to Los Banos Main Track.

Eastward Light Type Signal 2046 on the Los Banos main track located 500 feet west of Los Banos Junction switch, Fresno, will govern movements to eastward main track and light type route signal mounted on mast of this signal will govern eastward movements through crossover between main tracks to yard tracks old yard, Fresno.

Eastward Light Type Signal 2042 on the eastward main track and located 500 feet west of the Los Banos main track junction switch, Fresno, will govern eastward main track movements only and light type signal mounted on mast of this signal will govern eastward movements from main track through crossover to yard tracks old yard, Fresno.

Double switch indicators located at derail west leg wye eastward main track and at east switch crossover between main tracks east of Belmont Avenue, Fresno, will govern movements from west leg of wye to westward main track east of Belmont Avenue, Fresno.

Double slip switch east of Divisadero Street has been equipped with switch stands, target and lamp position indicators.

Exeter.—Dwarf light signal 2565 governs train and engine movements from wye to Exeter main track. Dwarf light signal 2625 located on left side of wye track governs train and engine movements from wye to Visalia branch.

The normal indication of these dwarf signals with derails open is dark. When switch indicators located at derails is at proceed, derail must first be closed at which time the dwarf light signal will indicate stop until main track switch has been lined for movement at which time signal will display proceed indication.

A train or engine must not move from wye to main track with dwarf light signal displaying stop, except as provided by the rules.

Signal 2628 at junction of Visalia branch and Exeter main track governs train movements through siding switch Visalia branch west of junction switch and junction switch to Exeter main track.

This signal will be normally at stop until siding switch Visalia branch west of junction switch and junction switch have been lined for train movement from Visalia branch to Exeter main track when signal will indicate proceed providing Exeter main track is clear in both directions.

A train or engine must not move from Visalia branch to Exeter main track with signal displaying stop, except as provided by the rules.

Bena.—Oil spring switch, operating automatically at end of double track. "Take Siding Indicator" mounted on mast of block signal 3281. Illuminated letter "S" inoperative.

Oil spring switch at east end of siding will be hand thrown by trains entering and departing.

Eastward trains using siding will be governed by dwarf light signal 3282 which will indicate proceed after siding switch has been thrown to reverse position for two minutes.

The normal position of east siding switch will be for westward main track movements.

Oil spring switch at west end of siding will operate automatically for westward trains leaving siding.

Normal position of center switch at west end of siding is for westward trains. Switches will have to be thrown for eastward trains entering siding.

Tehachapi.—Trains on No. 1 track at Tehachapi, ready to leave, finding dwarf light signal 3595 at stop, will push button located in box on post two feet east of Signal 3593. After pushing this button signal will clear in two minutes if no trains in block.

Summit Switch.—Dwarf light automatic signal governs movements of trains from west end siding at Summit Switch to westward main track through crossover. The normal position of this signal with derail open is dark. Where switch indicator located at derail is at proceed, derail must first be closed at which time the dwarf signal will indicate stop, then the main track switches and crossover switches between main tracks must be lined for movement to westward main track before signal will display a proceed indication. A train must not move from siding to main track with dwarf light signal displaying stop except as provided by the rules.

Eric.—Dwarf light automatic signal east leg wye Eric governs movements of trains from east leg of wye Eric to westward main track through crossover.

The normal indication of this signal with derail open is dark. When switch indicator located at derail is at proceed, derail must first be closed, at which time the dwarf signal will indicate stop, then main track switch and crossover switches between main tracks must be lined for movement to eastward main track before signal will display a proceed indication. A train must not move from wye to main track with the dwarf signal displaying stop, except as provided by the rules.

Searles.—Automatic block signals 4277 and 4268, located at east and west end of Tunnel 29 at Searles.

Knife switches have been installed in relay boxes located at these signals for use of operators of motor cars passing through tunnel.

Motor cars should stop and if signal indicates proceed, switch in box should be thrown to reverse position which will place signals at stop before entering tunnel. After passing through tunnel, stop must be made at signal and knife switch thrown to reverse position, which will clear signals.

## INTERLOCKING

FRESNO TOWER—A. T. & S. F. Crossing 1.6 miles east of Fresno on Clovis Branch

For main track, one long whistle (—).

To or from spur track, one long and one short whistle (— o).

SUN MAID TOWER—A. T. & S. F. Crossing 1.5 miles east of Fresno on Exeter main track

One long whistle (—).

CALWA TOWER—A. T. & S. F. Crossing and double track 0.8 miles east of Calwa

Eastward trains approaching end of double track will call for switch and derail by one long, one short and one long whistle (— 0 —).

Westward trains, one long whistle for crossing and for double track (—).

Lower arm of signal located just east of crossing controls the admission of westward trains on to double track against the current of traffic.

Dwarf signal located between main tracks just west of tower controls eastward trains moving against the current of traffic.

## INTERLOCKING—Continued

## HANFORD TOWER—A. T. &amp; S. F. Crossing 0.3 miles west of Hanford

One long whistle (———).

## TULARE TOWER—A. T. &amp; S. F. Crossing 0.3 mile west of Tulare

One long whistle (———).

## KERN JCT. TOWER—A. T. &amp; S. F. Crossing, double track and McKittrick Branch 0.7 mile east of Bakersfield

For main track, one long whistle (———).

For movement over crossing on siding, one long, one short and one long whistle (———o———).

From S. P. to A. T. & S. F. main track, one long and one short whistle (———o).

Between main track and transfer track, one short, one long and one short whistle (o———o).

No. 1 track, two short, one long and one short whistles (o o———o).

Eastward main track signals are semi-automatic.

Dwarf light signals opposite end of double track governing westward movement are as follows:

Green.....Westward track to S. P. single track.

Yellow.....To Santa Fe westward double track or S. P. No. 1 track.

Dwarf light signal for eastward movement is located at west limits of interlocking plant. Light signals as follows:

Green.....Eastward main track.

Yellow.....Against current of traffic.

Transfer tracks have pipe connected derrails to main track (transfer switch).

## FRESNO, OLIVE AVE. CROSSING, AUTOMATIC INTERLOCKER

Interlocking limits extend from eastward Light Type Signal SA-2032, located 750 feet west of Fresno Traction Company crossing to westward Light Type Signal SA-2032 located 750 feet east of this crossing.

When these signals display stop, trains will be governed by interlocking rules within the interlocking limits and Rule 509 within the automatic portion of the block beyond the interlocking limits and will be preceded to crossing by flagman.

Dwarf light type signals installed between main tracks and located 80 feet east and west of this crossing govern trains moving against current of traffic. These signals indicate stop only and trains must be preceded by flagman who will give proceed signal from center of crossing.

## TEHACHAPI

Main track movements (to or from double track) one long whistle (———).

No. 1 siding, one short, one long and one short whistle (0———0).

## CALIENTE, ALLARD, BEALVILLE, CLIFF, WOODFORD, MARCEL

The east and west switches of sidings at Caliente, Bealville, Cliff, Woodford, Marcel and the east switch of siding at Allard are interlocked and controlled from Telegraph office. All other switches will remain hand throw. The switch and signals at Allard and Cliff are controlled by the plant at Bealville.

Interlocking limits extend on main track from the eastward signal, located fifty (50) feet west of the west switch, to the westward signal, located fifty (50) feet east of the east switch at Caliente, Woodford and Marcel, and on both main track and siding at Woodford and at Bealville from the eastward signal, located fifty (50) feet west of the west switch Allard to westward signal, located fifty (50) feet east of the east switch Cliff. All signals within these limits are interlocking, except signals 3412 and 3417, which are automatic. Rule 628 is modified to permit movement to be made past inoperative interlocking signal on telephone authority from signal operator, in lieu of hand signals, and train and engine men must assure themselves that switches are properly lined for the desired route.

When the eastbound interlocking signals east end Bealville or the westbound interlocking signals west end Cliff are inoperative, trains must be preceded by flagman to the next signal.

Semaphore signals will govern main track movements and dwarf light signals will govern movements to and from sidings. At Woodford additional dwarf light signals are located near middle of siding governing siding movements.

Trains stopped by signals must communicate with signal operator by telephone located in telephone booths at east and west switches and be governed by his instructions. Additional telephones are provided at derail west end house track Woodford, and at derail of house track extension at Caliente. If instructed by signal operator to throw interlocked switch by hand, follow instructions posted in telephone booth.

The member of crew cranking switch over, after receiving permission from signal operator, must notify rear member of his crew in order that switch will be returned to normal position, or remain at switch and return it to normal position, unless instructed by signal operator to leave switch open.

When for any reason, proceed indication of an interlocking signal cannot be acted upon at once signal operator must immediately be notified.

Trains or engines entering main track, except where fixed signals govern movement, must receive authority from signal operator then may proceed with caution, not exceeding twelve (12) miles per hour to next signal, except helper engines to cut into train standing on main track at Caliente.

At Caliente, Bealville and Marcel the siding next to main track will be known as eastward siding, adjoining track will be known as westward siding. Inside siding switches are oil spring switches and normal position is for train entering siding. Trains

## INTERLOCKING—Concluded

entering siding past an inoperative signal must assure themselves this switch is properly lined.

At Cliff, Spur switch west end siding will be hand operated and trains must not enter or leave spur except on telephone authority from signal operator at Bealville.

At Woodford "Take Siding Indicator" mounted on most of westward interlocking signal will govern westward trains that are to use house track.

When westward third class and extra trains are given main track at Allard, and are unable to proceed further ahead of superior trains in the same direction, they will immediately advise the signal operator at Bealville.

Trains entering sidings at Caliente, Bealville and Marcel will stop clear of adjacent siding unless a proceed signal is indicated in light signal governing the movement to main track.

## GENERAL

For movement against current of traffic on double track, give one short and two long whistles (o———o).

When a train which has been given a proceed semaphore signal at any crossing does not wish to use crossing, one short, two long and one short whistle should be sounded (o———o).

## MISCELLANEOUS

1. Rear brakemen in Freight and Passenger Service shall have had at least one year's experience, which shall be interpreted as meaning service as a brakeman on road or roads operating under standard rules.

2. When taking water with a freight train of twenty or more cars, engine must be detached before reaching water column, except as follows:

All points on the Valley district	Lancaster.....Eastward trains
Caliente.....Eastward trains	Ravenna.....Westward trains
Woodford.....Eastward trains	Lang.....Westward trains

In freight service with over 30 cars where it is necessary to make a short move to reach water or oil column, including that required to spot second engine of double header, locomotive must be cut off before spotting at column.

3. Water supply at Bealville, Marcel and Stevens is for emergency use only. Tank spouts are locked.

Take as little water as possible at Cantil and take water at Palmdale, Lang and Haiwee only when absolutely necessary.

Water columns Nos. 2 and 4 at Ravenna are out of service.

We have zeolite treated water at Fresno, Mojave and Saugus. Use this treated water much as possible.

4. Helpers will cut out at Vincent unless otherwise instructed.

Helper engines cutting out of eastward trains at Summit Switch, enter wye from east leg.

In taking water on freight trains with helper cut in, train will be cut ahead of first helper from head end and will back to point where it is to take water. After stopping, train will be cut ahead of following helper.

Should a stop be made short of a turnout at a point where helpers are to be cut out, cut will be made ahead of leading helper and train engine will pull head portion to clear, to prevent damage done by helper in shoving during short move.

In movement of light engines between Bakersfield and Mojave the number of engines coupled is restricted to four.

5. Helpers must be cut in ahead of rear end cars.

6. Fresno—Trains from Clovis Branch and Exeter main track stop at "stop" board at junction of these lines.

Goshen Jct.—Trains from Visalia Branch stop at "stop" board east end of yard.

7. Goshen Jct.—End of the Visalia Branch will be at first switch east of the station where it enters Bakersfield-Fresno main track.

8. At Vincent siding next to main track will be known as eastward siding; back track will be known as westward siding.

9. At Rowen the siding east of the crossovers will be known as the westward siding, the one west of the crossovers as the eastward siding.

Trains using other than the designated siding, unless authorized by the dispatcher, must be preceded by a flagman.

10. House track at Woodford must not be used for setting out or storing of cars.

11. Tracks at following stations must not be used by engines larger than consolidation type. Spurs at Bena, Caliente, Gypsite, Toby, Garlock Wye and sidings at Toby, Goler, Rand and Teagle.

When switching the west end of Saltdale, with 2-10-2 engines, hold onto sufficient number of cars to prevent engine from going beyond frog. The decline from main track siding is too abrupt for this type of engines.

12. Track next to main track (No. 1) west of station at Tehachapi will be used as westward siding.

13. Track next to and north of main track at Ducor will be known as siding No. 1. Second track north of main track, will be known as Minkler Southern Ry. main or No. 2 track. Trains will use extreme east switch to enter or leave Southern Pacific main track. Inside switches will be left lined for Siding No. 2.

14. Train movements on Richgrove-Jovista Line will not be authorized by train orders. Trains using this line will do so under flag protection.

Flagman will be left at Richgrove with instructions to hold all other trains desiring to use this track until return of his train.

15. Night signals will be displayed through all tunnels.

16. West switch Ivanhoe is located 790 feet east of Ivanhoe station sign.

17. Engines heavier than large Moguls will not be permitted east of east switch Crump. Flanges of engines proceeding farther must be thoroughly oiled before moving around curves.

Engines larger than small Moguls will not be run between Hardwick and Riverdale. Engines larger than Moguls will not use spur at Maltermoro.

18. Blow off cocks, sanders or injectors must not be used and boosters not started passing over oil buffer spring switches.

19. No train, engine, car or motor shall be stored within 100 feet of either property line of County Road crossing or Alfred Ice Cream Co. track at Tipton, unless the crossing is protected by a flagman.

20. Switching movement from spurs on heavy grades should be accomplished in a manner to make it impossible for cars to run out on main track. This can be done by stopping train between switches and by switching from spur track to train, leaving switch lined for spur track until work is completed. Do not switch cars into a siding on grade where such siding is unprotected by derail. Do not handle cars ahead of engine descending grades when practicable to avoid same. Whenever possible, when switching on heavy grades, engine should be kept on down hill side of cars being handled, or such switching moves be made against a derailer.

21. To avoid congestion in the vicinity of Kern Junction Tower and delays in getting engines to roundhouse, indicators and markers will be displayed until engines arrive on the inbound track at the roundhouse.

22. To expedite movement of relief trains out of terminals, crews for relief trains report as quickly as possible after called and not wait to eat as meals will be provided on relief trains.

23. Engines will not be left on No. 1 Track at Tehachapi while crews are eating. When engines are left with no one attending, the reverse lever will be left in the extreme back motion, cylinder cocks will be left open, independent brake valve or straight air valve will be left in service position, noting amount of brake cylinder pressure before leaving the engine. No crew will leave their engine, for the purpose of eating, before engine has come to rest, in the clear, and, when engine or engines are left alone, tank brakes should also be set in addition to independent brakes.

This will apply at other points where similar conditions exist.

24. Following will govern the handling of switches for the center sidings at Warren and Monolith:

## Westward Trains—Heading in.

Switches will be handled in following sequence:

1. Westward main line switch.
2. Center siding switch.
3. Derailing switch.

## After Train is in siding.

1. Westward main line switch.
2. Derailing switch.
3. Center siding switch.

## Eastward Trains.

Switches will be handled in normal manner.

25. It should be understood that Rule 825 requires that Conductors, when leaving cars on tracks designated as passing sidings, or principally used as such, and leaving the station because of making a side trip, or proceeding on their straight-away trip, or are released to avoid violation of the Hours-of-Service Law, or are otherwise released from duty, shall advise Chief Train Dispatcher promptly at first available train order office. Such requirements will not apply when train occupies siding while crew is switching at that station or at terminal yards.

Rule 825 does not supersede Rule 105 requiring trains entering sidings to proceed with caution, or any special instructions in the time-table.

26. When the head end of a train misses their train orders and clearance, as office is passed, operator will not make delivery to the rear end but will make every effort to stop the train by giving stop signals. In case either end of the train misses the orders or clearance card, operator will notify dispatcher and make telegraphic report to Superintendent.

27. Occupied outfit cars must not be switched unless air brakes be cut in, and must not be detached while in motion. Cars must not be kicked or dropped against occupied outfit cars. Cars to be coupled to occupied outfit cars must have air brakes cut in.

28. East end of the siding at Leroy has been taken out of service and the switched spiked. Switching can be done from the west end only as far as the Warehouse.

29. At Armona no switching movements will be made over Lake Street crossing unless protected by member of crew, or crossing flagman is on duty protecting crossing.

30. Slash bars have been removed from locomotives operating between Los Angeles and Bakersfield. Slash bars will be located in freight houses at the following stations: Caliente, Woodford, Tehachapi, Mojave, Lancaster and Ravenna, and when used must be returned to station where picked up.

SPECIAL INSTRUCTIONS—Continued

TRAINS MUST NOT EXCEED THE SPEED IN MILES PER HOUR SHOWN BELOW

Page	BETWEEN	Passenger			Freight	Engines Backing With or Without Cars
		Maximum	With Mt. 1, 2, 3, 4, 5 Santa Fe Mt. Type	With Santa Fe 3800 Type F-1, 3, 4, 5, 6 SP-1, 2, 3 AC-4, 5, 6	Freight and Mixed Maximum	
2	Biola Jct. and Clinton Ave. Fresno.....	50	50	45	35	20
2	Clinton Ave. and north city limits of Fresno.....	20	20	20	20	20
2-3-7	Fresno within city limits.....	15	15	15	10	10
2-3-7	Fresno and Calwa Tower, Blossoma and Barton outside city limits.....	30	30	30	15	10
2	Calwa Tower and Goshen Jct.....	50	50	45	35	20
2	Goshen Jct. and Tipton.....	60	60	45	35	20
2	Tipton and Mile Post 310.....	60	60	45	40	20
2-4	Mile Post 310 and Mile Post 314.4.....	35	35	35	20	20
3	Blossoma and Famoso.....	45	.....	.....	30	20
4	Mile Post 314.4 and one mile west of Ilmon.....	50	50	45	40	20
4	One mile west of Ilmon and one mile west of Tehachapi.....	30	28	25	20	15
4	One mile west of Tehachapi and one mile east of Cameron.....	50	50	45	35	20
4	One mile east of Cameron and Mojave.....	45	45	45	20	20
5	Mojave and Mile Post 417.....	50	50	45	35	20
5	Mile Post 417 and Lang.....	30	28	25	20	15
5	Lang and Saugus.....	30	28	25	22	15
6	Armona and Crump.....	25	.....	.....	25	20
6	Kerman and Goshen Jct.....	30	.....	.....	30	20
6	Goshen Jct. and Exeter.....	40	.....	.....	30	20
6	Ingle and one mile west of Riverdale.....	25	.....	.....	25	20
6	One mile west of Riverdale and Hardwick.....	15	.....	.....	15	15
7	Barton and Gordon.....	25	.....	.....	25	20
7	Gordon and Friant.....	18	.....	.....	18	15
7	Rossi and Stratford.....	15	.....	.....	15	15
7	Porterville and Springville.....	15	.....	.....	15	10
7	Richgrove and Jovista.....	25	.....	.....	25	20
8	Kern Junction and Mile Post 354½.....	25	.....	.....	25	20
8	Mile Post 354½ and Olig.....	20	.....	.....	20	15
8	Mojave and Owenyo.....	40	.....	.....	30	20

Trains must not exceed 18 miles per hour on curves between Barton and Maltermo and 15 miles per hour over Fresno Interurban tracks at Las Palmas.

Trains must not exceed 20 miles per hour on first curve east of Lokern and trains with large loaded oil cars must not exceed 15 miles per hour between Olig and Mile Post 354½.

Passenger trains must not exceed 30 miles per hour and freight trains 18 miles per hour on the following curves between Mojave and Owenyo:

Curve between M. P. 422.91 and M. P. 423.19.

Curve between M. P. 433.57 and M. P. 433.93.

Curve between M. P. 466.98 and M. P. 467.72.

Trains must not exceed 8 miles per hour over west siding switch at Owenyo.

Trains must not exceed 15 miles per hour over east leg of wye at Exeter.

When interlocking signals at Caliente, Allard, Bealville, Woodford and Marcel indicate proceed trains may run at speed and through other interlocking plants with caution.

Trains must not exceed 30 miles per hour through turnout of double track just west of Calwa Tower. Westward trains must not exceed 20 miles per hour and eastward trains 30 miles per hour end of double track at Bena. Eastward trains must not exceed 30 miles per hour over oil spring switch west end of Tehachapi. Through other cross-overs and turnouts trains must not exceed 8 miles per hour.

The speed of F-4 and F-5 type engines between Mojave and Searles is restricted to 25 miles per hour.

On sidings in territory between Bakersfield and Saugus trains will run with caution, not exceeding ten miles per hour.

Between one mile east of Cameron and Mojave yard all engines running light are permitted a speed of 25 miles per hour. In other territories engines running light must not exceed freight train speed, except F-1 and lighter engines may run 25 miles per hour where freight speed is 20 or 22 miles per hour.

SPEED OF TRAINS REGULATED BY ORDINANCE THROUGH CITY LIMITS

Page	STATION	Passenger	Freight	Running Backward
2-3-7	Fresno, along or across street crossings.....	8	8	8
2	Fowler, between 5 A. M. and 11 P. M.....	20	20	20
2	Selma, between 5 A. M. and 11 P. M.....	20	20	20
2	Kingsburg, between 4 A. M. and 11 P. M.....	20	20	20
2	Tulare, between 5 A. M. and 11 P. M.....	20	20	20
3	Reedley, between 5 A. M. and 11 P. M.....	20	20	20
3	Exeter, between 5 A. M. and 11 P. M.....	20	20	20
3	Lindsay, between 5 A. M. and 11 P. M.....	20	20	20
3	Porterville, between 5 A. M. and 11 P. M.....	20	20	20
6	Hanford, between 5 A. M. and 11 P. M.....	20	20	20
6	Armona, Lake Street Crossing.....	20	20	20
6	Visalia.....	15	15	15
2-4-8	Bakersfield, within city limits over street crossings.....	20	20	20

OTHER MAXIMUM SPEEDS

Subject to Speed Restrictions

	M.P.H.
Mikado, F-1 type and Consolidation engines.....	45
F-3, F-4, F-5, SP-1, 2, 3 and Santa Fe 3800 type engines, backward movement over switch turnouts.....	8
AC, M.M. (except where freight speed is less, be governed thereby).....	40
Yard engines (except where freight speed is less, be governed thereby).....	20
Engines equipped with tenders having water capacity 7000 gallons or less, except classes 70-R-1 and 70-SC-1.....	50
Engines equipped with tenders having water capacity in excess of 7000 gallons and including classes 70-R-1 and 70-SC-1.....	60
Engines with main rod only removed.....	30
Engines with side rods only removed.....	30
Engines with both main and side rods removed.....	20

SPEED RESTRICTIONS

Passenger trains must not exceed 35 miles per hour and freight trains 25 miles per hour through Goshen Junction Yard.

Passenger trains must not exceed 40 miles per hour and freight trains 35 miles per hour over A. T. & S. F. crossing at Tulare.

Passenger trains must not exceed 35 miles per hour and freight trains 25 miles per hour on curve west of Sanger—Mile Post 218.54 and Mile Post 218.74. Passenger trains must not exceed 30 miles per hour and freight trains 20 miles per hour on curve west of Orris.

AC-4, 5 and 6 type engines, when in passenger service are permitted a speed of 28 miles per hour between one mile west of Ilmon and one mile west of Tehachapi and between Mile Post 417 and Saugus.

Speed of 35 miles per hour is permitted westward freight trains Mojave to one mile east of Cameron.

Passenger trains must not exceed 15 miles per hour and freight trains 10 miles per hour between Standard Oil switch and extreme east switch Mojave Yard.

Speed of westward freight trains is restricted to 22 miles per hour from Mile Post 417 to Palmdale.

Trains must not exceed 20 miles per hour on curves between Huron and Turk, 15 miles per hour over trestle at Mile Post 267.3 and 8 miles per hour between Crump and end of track.

Passenger trains must not exceed 30 miles per hour and freight trains 20 miles per hour on curve at Ambler.

Passenger trains must not exceed 30 miles per hour and freight trains 18 miles per hour on curve east of Goshen Jct. on Visalia Branch.

Trains must not exceed 12 miles per hour on curves Springville, Magesite and Pernu branches and 15 miles per hour on curves Richgrove branch.

Trains handling relief outfit must not exceed 25 miles per hour on main track Exeter and Kerman, Fresno and Famoso, via Sanger, 15 miles per hour over other lines and 15 miles per hour on curves of 5 degrees and over. Where freight speed is less, be governed thereby.

No. 25 will not make up any time on its schedule between Tehachapi and Ilmon.

When locomotive Cranes, of the type SPMW 3636, are placed in trains, they must be handled with the heavy end forward, except where it is impossible to turn them, in which case they may be turned at the first available point.

In isolated cases, where it becomes absolutely necessary to handle these cranes with the light end forward, extreme care must be exercised and speed of 25 miles per hour not exceeded.

Train No. 26 on Sunday mornings will reduce speed to ten (10) miles per hour at Tulare and Delano to permit dispatch of newspapers at these points.

Wooden passenger cars, when used in main line service, must be equipped with steel center sills and steel platforms, except:

(a). Wooden baggage, express and other head-end cars not so equipped may be used, when entire consist of train is composed of such equipment, or may be handled on head end of passenger trains, provided consist thereof does not exceed seven cars, and inspection indicates movement can be made with entire safety.

(b). Wooden passenger-carrying cars not so equipped may be used in local passenger trains and in local extras, operated account Holiday or excursion traffic, provided speed of such extras is restricted to forty miles per hour. When consist of local regular or extra trains contain both wooden and steel passenger-carrying cars, the wooden equipment must be kept together and on the rear.

SPEED TABLE

Speed per Hour	1 Mile in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.
6	10.00	24	2.30	37	1.37	49	1.13
8	7.30	25	2.24	38	1.34	50	1.12
10	6.00	26	2.18	39	1.33	51	1.10
12	5.00	27	2.13	40	1.30	52	1.09
15	4.00	28	2.08	41	1.27	53	1.08
16	3.45	29	2.04	42	1.25	54	1.06
17	3.31	30	2.00	43	1.23	55	1.05
18	3.20	31	1.96	44	1.21	56	1.04
19	3.09	32	1.92	45	1.20	57	1.03
20	3.00	33	1.89	46	1.18	58	1.02
21	2.51	34	1.85	47	1.16	59	1.01
22	2.43	35	1.82	48	1.15	60	1.00
23	2.36	36	1.80				

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

CLASS	All Steel	Steel Underframe	Wood
Baggage—60 ft.	93,070		
—66 ft.	127,610		
—70 ft.	122,620		
—70 ft. (With Auto. End Door)	125,800		
—(Dynamo)	98,730		
Baggage and Mail—60 ft.	103,620		
—69 ft.	124,760		
—70 ft.	129,140		
Baggage and Passenger	108,675		
Express Refr.—N.P.Ry.	112,640		
—G.N.Ry.	74,000		
—A.R.E. No. 40-154	78,000	87,120	81,120
—" " " 155-224	89,000		
—" " " 500-506	110,000		
—" " " 1101-1175	85,000		
—P.F.E. 500-799	83,000		
Tea and Silk			48,180
Express, Horse	133,050		81,033
Postal	112,120		
Postal Storage—40 ft.	74,530		
—60 ft.	105,120		
Club	146,210	122,300	
Official	170,700	155,370	109,370
Chair—60 ft.	100,620		84,740
—74 ft.	163,900		
Coaches—60 ft.	98,130		
—70 ft.	137,640		
—72 ft.	139,660		
—73 ft.	148,040		
—72 ft. (Interurban)	120,000		
All-Day Lunch—Chair	105,970		81,210
—Coach	103,875		
Cafe Coach		138,600	
Diner—70 ft.		135,930	131,040
—72 ft.	155,330		134,530
—77 ft. (Arch Type Roof)	156,000		
—77 ft. (Clere Story Roof)	161,520		
—79 ft.	169,100		
—80 ft.	175,200		
Cafe Parlor	148,950	161,200	
Lounge	173,000		
Observation—75 ft.	154,400		
—77 ft.	173,300		
Pullman—Observation	164,600	141,870	121,300
—Observation Lounge	171,200	153,000	
—Lounge	168,700		
—Parlor	155,600	147,500	
—Bedroom Car	167,600		
—Standard Sleeper	164,600	144,000	
—Tourist	140,600	133,000	
Rail Car—Gas-Electric, 400 H.P.	158,400		
—Gas-Electric, 600 H.P.	167,200		
—McKeen—55 ft.	64,140		
—" "—70 ft.	71,530		
Observation (Open Top)			62,000

STRUCTURES LESS THAN STANDARD CLEARANCE

Mile Post	Location	Description
<b>Fresno-Saugus—Main Track</b>		
205.5	Fresno Shop Yard	Water tank spout.....Side
205.5	Fresno	Pullman shed.....Side
220.7	Selma	Libby-McNeill & Libby.....Side
313.2	Bakersfield, east end Round House lead	Water column.....Side
313.2	Bakersfield Emergency Column No. 4	Water column.....Side
313.2	Bakersfield, roundhouse turnout tracks	Sandhouse.....Side and Overhead
313.2	Bakersfield	P. F. E. ice dock.....Side
313.2	Bakersfield	Pullman shed.....Side
313.2	Bakersfield	Wheel unloading crans.....Overhead
313.2	Bakersfield	Coal house at store.....Side
313.2	Bakersfield	Air pump house.....Side
313.2	Bakersfield	Gravel Bunkers, Gravel Pit.....Side and Overhead
340.5	Bealville	Water tank spout.....Side
354.2	Marcel	Water tank spout.....Side
434.8	East of Russ	Tunnel 17 1/2.....Overhead
434.8	East of Russ	Water flume.....Overhead
435.5	East of Russ	1st bridge, Santa Clara river.....Side
435.9	East of Russ	3rd bridge, Santa Clara river.....Overhead
436.1	East of Russ	4th bridge, Santa Clara river.....Side and Overhead
436.3	East of Russ	5th bridge, Santa Clara river.....Side and Overhead
436.8	East of Russ	7th bridge, Santa Clara river.....Side and Overhead
436.9	East of Russ	8th bridge, Santa Clara river.....Side and Overhead
437.4	East of Russ	10th bridge, Santa Clara river.....Side and Overhead
437.0	East of Russ	Tunnel 18.....Overhead
439.5	East of Lang	Tunnel 20.....Overhead
440.1	East of Lang	Tunnel 21.....Overhead
441.5	East of Lang	Tunnel 22.....Overhead
445.3	East of Humphreys	Tunnel 23.....Overhead
449.7	East of Honby	Tunnel 24.....Overhead
<b>Fresno-Famoso via Porterville</b>		
205.5	Fresno	S. J. L. & P. Corp. plant.....Side and Overhead
225.3	Fargo	Pepper Fruit Co.....Side
257.4	Exeter	Water tank spout.....Side
257.4	Exeter	Visalia Electric Carhouse Doorways.....Side
<b>Goshen Jct.-Coalinga-Kerman</b>		
229.1	Armona	Water tank spout.....Side
244.1	Stratford	Water tank spout.....Side
268.4	Coalinga	Water tank spout.....Side
272.0	Leroy	Guy wire and Warehouse.....Side and Overhead
<b>Fresno-Friant</b>		
205.5	Fresno	Alley Drill Track, Fulton.....Side
217.4	Clovis	Water tank spout.....Side
<b>Bakersfield-Olig</b>		
328.4	Stevens	Water tank spout.....Side
345.4	Kilowatt	Power House.....Overhead and Side
<b>Mojave-Owenyo</b>		
402.5	Cantil	Water tank spout.....Side
426.8	East of Teagle	Tunnel 29.....Overhead
484.1	Haiwee	Water tank spout.....Side
523.0	Owenyo	Highline trestle on Calif. Alkali Co. Spur.....Overhead and Side

LIST OF SURGEONS

NAME	TITLE	LOCATION
Dr. W. B. Coffey	Manager and Chief Surgeon	San Francisco, Cal.
Dr. J. D. Morgan	District Surgeon	Fresno, Cal.
Dr. Chas. A. James	Asst. District Surgeon	Fresno, Cal.
Dr. D. H. Trowbridge	Oculist and Aurist	Fresno, Cal.
Dr. J. D. Wagner	Emergency Surgeon	Selma, Cal.
Dr. W. H. Nielson	District Surgeon	Fowler, Cal.
Dr. E. C. Halley	District Surgeon	Sanger, Cal.
Dr. G. A. Hawkins	District Surgeon	Reedley, Cal.
Dr. D. C. Fowler	District Surgeon	Exeter, Cal.
Dr. C. S. Mitchel	District Surgeon	Dinuba, Cal.
Dr. O. A. Olson	District Surgeon	Kingsburg, Cal.
Dr. M. S. McMurtry	Emergency Surgeon	Clovis, Cal.
Dr. R. N. Fuller	District Surgeon	Tulare, Cal.
Dr. J. Seiberth	District Surgeon	Pixley, Cal.
Dr. Henry A. Rivin	District Surgeon	Delano, Cal.
Dr. W. B. Smith	District Surgeon	Delano, Cal.
Dr. F. R. Guido	District Surgeon	Visalia, Cal.
Dr. C. T. Rosson	District Surgeon	Hanford, Cal.
Dr. J. C. Drake	District Surgeon	Kerman, Cal.
Dr. Geo. A. Meracle	Emergency Surgeon	Caruthers, Cal.
Dr. Wm. P. Byron	District Surgeon	Lemoore, Cal.
Dr. G. T. Mountford	District Surgeon	Coalinga, Cal.
Dr. P. S. Barber	District Surgeon	Porterville, Cal.
Dr. W. W. Tourtillott	Assoc. District Surgeon	Porterville, Cal.
Dr. H. D. R. Shoemaker	District Surgeon	Lindsay, Cal.
Dr. H. N. Bell	District Surgeon	Bakersfield, Cal.
Dr. N. N. Brown	Consulting Surgeon	Bakersfield, Cal.
Dr. David N. Bacon	Oculist and Aurist	Bakersfield, Cal.
Dr. R. M. Jones	Assoc. Oculist and Aurist	Bakersfield, Cal.
Dr. E. A. Shaper	District Surgeon	Woodford, Cal.
Dr. R. G. Doupe	District Surgeon	Tehachapi, Cal.
Dr. C. C. Warner	District Surgeon	Mojave, Cal.
Dr. M. A. Williamson	District Surgeon	Lone Pine, Cal.
Dr. Harvey Crook	District Surgeon	Bishop, Cal.
Dr. B. E. Nicola	District Surgeon	Independence, Cal.
Dr. Herman S. Hendrickson	Emergency Surgeon	Randsburg, Cal.
Dr. S. H. Savage	District Surgeon	Lancaster, Cal.
Dr. F. P. Brackett	District Surgeon	Palmdale, Cal.
Dr. J. E. Wheat	District Surgeon	San Fernando, Cal.

Note.—Emergency Surgeons should only be summoned for temporary treatment when prompt attention is required and when patients cannot be sent to or await arrival of Division or District Surgeon.

LOCATION OF HOSPITAL STRETCHERS

FRESNO	BAGGAGE ROOM	MOJAVE	BAGGAGE ROOM
	STORE ROOM		CAR SHOPS
	RELIEF TRAIN		

GOSHEN JUNCTION SAUGUS

BAKERSFIELD	BAGGAGE ROOM	EXETER
	EMERGENCY HOSPITAL	PORTERVILLE
	RELIEF TRAIN	COALINGA
	CAR SHOPS	HANFORD
	MACHINE SHOPS	OWENYO

TEHACHAPI

LOCATION OF HOSPITALS

GENERAL HOSPITAL	SAN FRANCISCO
EMERGENCY HOSPITAL	BAKERSFIELD
WHITE MEMORIAL HOSPITAL	LOS ANGELES

Employees are warned that it is dangerous to ride on top or sides of cars at above-mentioned points. Employees must guard against coming in contact with overhead wires or their connections.

RATING OF LOCOMOTIVES--SAN JOAQUIN DIVISION

In M's of 1000 Lbs. Back of Tender.

Nominal Class	Official Class	Engine Numbers	Boiler Pressure	Bakersfield and Fresno via Goshen Jct. Bakersfield and Kerman via Armona, Rosamond, Lancaster. (See note)	Famoso and Fresno, via Exeter	Bakersfield to Mojave	Saugus to Bakersfield	Mojave to Saugus
M-4	M-63 20/28 135-S	1615 to 1719	190	4150	3300	700	780	830
M-4	M-63 20/28 126	1615 to 1719	190	3950	3150	670	750	790
M-8	M-63 21/28 159-S	1720 to 1724, 1770 to 1779	200	4850	3800	810	910	960
M-6	M-63 21/28 150-S	1725 to 1769, 1780 to 1803	210	5100	4050	890	990	1050
M-9	M-63 21/28 150-S	1804 to 1822	180	3550	2800	570	640	680
T-1	T-63 20/26 112	2235 to 2271	210	5050	4000	850	950	1000
T-23	T-63 21/28 156-S	2301 to 2310	210	5550	4400	950	1050	1100
T-23	T-63 21/28 163-SF	2311 to 2362	210	5700	4500	940	1050	1100
T-28, 31	T-63 22/28 162-S	2363 to 2370, 2372 to 2384	210	4600	3600	690	780	830
T-32	T-69 23/28 174-S	2438 to 2452, 2459, 2460	210	5000	3950	750	850	910
P-1, 3, 5	P-77 22/28 141-S	2400 to 2437	200	5650	4450	880	990	1050
P-4	P-77 23/28 155/B-58-SF	2453 to 2458	200	6250	4950	950	1050	1150
P-6	P-77 25/28 172-S	2478 to 2483	200	2491				
P-10	P-73 25/30 181-SF	2484 to 2491						
P-10	P-73 25/30 183/B-63-SF							
C-9, 10	C-57 22/30 200-SF	2513 to 2599, 2750, 2752 to 2860	210	6100	4800	1050	1200	1250
C-9, 10	C-57 22/30 194-S							
C-8	C-57 22/30 192-S	2698 to 2749, 2751	210	4400	3450	620	700	750
C-5	C-57 22/30 187-S	2624 to 2679	200	3600	2850	470	540	580
C-5	C-57 22/30 185-S	2680 to 2693	210	7800	6200	1350	1500	1600
A-6	A-81 22/28 127/B-64-SF	3000 to 3003	200	8900	7050	1550	1750	1850
A-3	A-81 20/28 112-S	3025 to 3040, 3042 to 3071	210	7800	6200	1350	1500	1600
A-3	A-81 20/28 116/B-59-S	3025 to 3040, 3042 to 3071	210	8900	7050	1550	1750	1850
Mk-5, 6	Mk-63 26/28 210-S & 231-SF	3241 to 3277	200	10,200	8050	1800	2000	2100
F-1	F-63 27 1/2 273-S	3600 to 3652	210	12,300	9750	2250	2450	2600
F-4, 5	F-63 29 1/2 32-306/B-61-SF	3668 to 3763	200	16,000	12,700	2950	3250	3400
F-5	F-63 29 1/2 32-306/B-62-SF	3764 to 3768	210	8350	6600	1350	1500	1600
AC-1, 2, 3	AC-57 22-23 441-SF	4000 to 4048	235	12,000	9500	2150	2350	2500
AC-4	AC-63 24-24 475-SF	4100 to 4109						
AC-5	AC-63 24-24 483-SF	4110 to 4125						
Mt-1,3,4,5	Mt-73 28/30 246/B-60-SF	4300 to 4376						
SP-1	SP-63 25-25 316/B-60-SF	5000 to 5015						
SP-2, 3	SP-63 25-25 317/B-61-SF	5016 to 5048						

NOTE--Ratings of thru trains east will be those shown for Mojave to Saugus to avoid filling out at Rosamond.  
Ratings of thru trains west will be those shown for Saugus to Bakersfield to avoid filling out at Lancaster.

Main Lines		
End Western Division to Goshen Jct.	C. P. Ry.	40.10
Goshen Jct. to Saugus	S. P. R. R.	210.99
Fresno to Famoso via Exeter	S. P. R. R.	103.95
<b>Total Main Lines</b>		<b>355.04</b>
Branches		
Arvin	S. P. Co. Magunden to Arvin	16.89
McKittrick	S. P. R. R. Bakersfield to Olig	50.07
Clovis	S. P. R. R. Fresno to Friant	24.14
Coalinga	S. P. R. R. Armona to Crump	43.08
Fresno Interurban	F. I. Ry. (Barton Transfer to Hammond)	2.29
	(Barton Transfer to Belmont Ave. 14.60)	16.89
Kerman	S. P. R. R. Kerman to Goshen Jct. via Armona	51.37
Magnesite	P. N. E. Ry. Magnesite Jct. to Magnesite	2.44
Minkler Southern	A. T. & S. F. Ry. Porterville to Ducor	12.53
Oil City	S. P. R. R. Oil Junction to Oil City	6.76
Owenyo	C. P. Ry. Mojave to Owenyo	143.15
Pernu	P. N. E. Ry. Pernu Junction to Pernu	1.48
Richgrove	S. P. R. R. Richgrove to Jovista	4.16
Riverdale	S. P. R. R. Hardwick to Ingle	42.15
Springville	P. N. E. Ry. Porterville (Olive St.) to Springville	15.83
Stratford	S. P. R. R. Rossi to Stratford	8.93
Visalia	S. P. R. R. Goshen Junction to Exeter	16.76
<b>Total Branches</b>		<b>456.63</b>
<b>Total San Joaquin Division</b>		<b>811.67</b>

Allowance for empty and underloaded cars.....	Less than 40 M's.....	6	6	3	3	3
	40 to 50 M's.....	3	3	0	0	0

These ratings include the total weight of train, exclusive of engine and tender, which the different class of locomotives will haul in each direction between the stations shown.

CLASS "C"—Consolidation engine "M"—Moguls "Mk"—Mikado "E"—Eight-wheeler  
"T"—Ten-wheelers "TW"—Twelve-wheelers "P"—Pacific Type

Example:—Consolidation engine having 57-inch drivers, Cylinders 22-inch diameter and 30-inch stroke, and weighing 187,000 pounds on Drivers: C-57  $\frac{22}{30}$  187

C. G. TANDY, Trainmaster, Fresno  
A. H. HOFFMAN, Trainmaster and Road Foreman of Engines, Mojave

E. F. WASEM, Chief Dispatcher,  
F. B. WARNER, Asst. Chief Dispatcher,  
J. S. FOCKLER, Asst. Chief Dispatcher.

D. S. WEIR, Asst. Superintendent.

MAP SHEET NO. 10

ROUTE 66

STATE OF CALIFORNIA

# DIVISION OF HIGHWAYS

OF THE STATE



STATE OF CALIFORNIA

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