

M. Lancaster



SANTA FE SAFETY FIRST



Every employe should promptly report any unsafe condition or practice to his Supervisor.

LOS ANGELES DIVISION

- W. H. LAWSON, *Trainmaster* Needles, Calif.
- B. T. JOHNSTON, *Road Foreman of Engines* ... Needles, Calif.
- G. R. DERKSEN, *Rules Examiner* Barstow, Calif.
- P. J. DE WOLF, *Trainmaster* Barstow, Calif.
- D. J. McDOUGAL, *Trainmaster* Barstow, Calif.
- N. C. ORFALL, *Asst. Trainmaster* Barstow, Calif.
- J. M. TAYLOR, *Asst. Trainmaster* Barstow, Calif.
- M. J. WOOD, *Asst. Trainmaster* Barstow, Calif.
- L. D. BURT, *Asst. Trainmaster* Barstow, Calif.
- J. C. TOLSON, *Road Foreman of Engines* Barstow, Calif.
- T. G. CORBIN, *Safety Supervisor* Barstow, Calif.
- B. J. HEATH, *Trainmaster* San Bernardino, Calif.
- G. C. DADO, *Trainmaster* San Bernardino, Calif.
- G. S. PATTERSON, *Asst. Trainmaster*.... San Bernardino, Calif.
- L. D. JONES, *Asst. Trainmaster* San Bernardino, Calif.
- J. P. HERNDON, *Road Foreman of Engines*
San Bernardino, Calif.
- S. R. GRISWOLD, *Asst. Trainmaster Agent* Kaiser, Calif.
- L. B. HARTMAN, *Safety Supervisor* San Bernardino, Calif.
- R. D. HARPER, *Rules Examiner*..... Fullerton, Calif.
- J. L. SCHROEDER, *Trainmaster* Fullerton, Calif.
- A. M. BATY, *Asst. Trainmaster* Fullerton, Calif.
- C. F. LILLEY, *Trainmaster* San Diego, Calif.

LOS ANGELES TERMINAL DIVISION

- J. M. WATKINS, *Trainmaster* Los Angeles, Calif.
- W. E. ADAMS, *Trainmaster* Los Angeles, Calif.
- D. E. BEAUCHAMP, *Trainmaster* Los Angeles, Calif.
- P. V. NASH, *Trainmaster* Los Angeles, Calif.
- C. K. SEAMAN, *Asst. Trainmaster* Los Angeles, Calif.
- G. SEFCIK, *Asst. Trainmaster* Los Angeles, Calif.
- R. P. GARCIA, *Asst. Trainmaster*..... Los Angeles, Calif.
- J. D. LUSK, *Asst. Trainmaster* Los Angeles, Calif.
- G. J. BUHLER, *Asst. Trainmaster Agent* Long Beach, Calif.
- W. G. BOYER, *Safety Supervisor* Los Angeles, Calif.
- G. D. CASSIDY, *Road Foreman of Engines* . Los Angeles, Calif.

COAST LINES

- J. E. THORNTON, *Supervisor of Air Brakes and General Road Foreman of Engines* ... Los Angeles, Calif.
- A. C. HENDERSON, *Road Foreman of Engines (AMTRAK)*
Los Angeles, Calif.

CHIEF TRAIN DISPATCHER'S OFFICE—SAN BERNARDINO
D. F. HODGES, *Chief Dispatcher*

ASST. CHIEF DISPATCHERS

- G. A. WOLLERTON - W. E. EBERT - E. M. BUTLER
- T. H. ESHELMAN - K. W. JURE

TRAIN DISPATCHERS

- | | | |
|--------------|--------------|----------------|
| A. C. KIDD | H. F. BROWN | R. E. TIEDEMAN |
| C. W. BURTON | D. R. MUNDAY | G. L. ADAMS |
| L. A. WRIGHT | J. T. WALSH | J. M. BIERD |
| E. M. ELLIS | D. E. PRYOR | E. W. TERRY |
| N. C. PECK | L. D. FAST | |

The Atchison, Topeka and Santa Fe Railway Co.



LOS ANGELES AND LOS ANGELES TERMINAL DIVISIONS

TIME TABLE No.

5

IN EFFECT

Tuesday, February 15, 1977

At 12:01 A.M.
Pacific Standard Time

This Time Table is for the exclusive use and guidance of Employes.

H. D. FISH
General Manager
LOS ANGELES, CALIF.

R. L. BANION **J. G. FRY** **R. T. DENNISON**
Asst. General Managers
LOS ANGELES, CALIF.

E. L. KIDD **L. D. EIDSON**
Superintendent *Superintendent*
SAN BERNARDINO, CALIF. LOS ANGELES, CALIF.

J. R. MERRITT
Terminal Superintendent
BARSTOW, CALIF.

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS
NEEDLES DISTRICT SOUTH TRACK

Location	M.P.H.	
	Psg. and Light	Freight
Barstow to Pisgah	90	60
Pisgah to Bagdad	79	60
Bagdad to M.P. 646.1	90	60
M.P. 646.1 to Goffs	79	60
Goffs to Needles	79	50
4 Curves M.P. 747.0 to 745.0	50	50
Curve M.P. 745.0 to 743.8	80	60
5 Curves M.P. 710.6 to 707.8	70	60
Curve M.P. 702.0 to 701.5	50	50
7 Curves M.P. 701.5 to 696.2	70	60
2 Curves M.P. 696.2 to 694.9	60	60
4 Curves M.P. 694.9 to 693.6	50	50
4 Curves M.P. 693.6 to 688.9	70	60
Curve M.P. 688.9 to 688.4	60	60
2 Curves M.P. 688.4 to 686.2	70	60
2 Curves and Grade M.P. 686.2 to 683.4	70	45
2 Curves and Grade M.P. 683.4 to 680.7X	50	45
2 Curves and Grade M.P. 680.7X to 677.8	65	45
10 Curves and Grade M.P. 677.8 to 671.4	70	45
3 Curves M.P. 631.0 to 628.7	75	60
10 Curves M.P. 625.5 to 613.8	65	60
6 Curves M.P. 613.8 to 609.1	75	60
2 Curves M.P. 609.1 to 608.4	65	50
9 Curves M.P. 599.1 to 589.1	70	50
6 Curves M.P. 589.1 to 587.0	50	50
14 Curves M.P. 587.0 to 578.1	55	50
"H" St. Crossing M.P. 578.1	15	15

NEEDLES DISTRICT NORTH TRACK

Needles to Goffs	79	60
Goffs to Bagdad	90	60
Bagdad to Pisgah	79	60
Pisgah to Barstow	90	60
"H" St. Crossing M.P. 578.1	15	15
Needles Freight Lead M.P. 578.4 to 580.3	30	30
23 Curves M.P. 578.1 to 589.3	50	50
3 Curves M.P. 589.3 to 593.3	60	60
Curve M.P. 593.3 to 593.8	40	40
11 Curves M.P. 593.8 to 603.3	60	60
2 Curves M.P. 608.3 to 609.1	70	60
2 Curves M.P. 670.5 to 672.1	70	60
10 Curves M.P. 672.1 to 678.1	55	55
2 Curves M.P. 678.1 to 680.3	40	40
7 Curves M.P. 680.3 to 686.2	50	50
2 Curves M.P. 688.4 to 689.5	60	60
Curve M.P. 692.9 to 693.7	65	60
4 Curves M.P. 693.7 to 695.0	50	50
10 Curves M.P. 695.0 to 702.0	60	60
5 Curves M.P. 707.8 to 710.6	70	60
Curve M.P. 743.8 to 745.0	80	60
4 Curves M.P. 745.0 to 747.0	50	50

Cadiz District

Cadiz District	MPH
Cadiz District	49
Bridge & Curve M.P. 106.8 to 107.3	30
Track M.P. 107.3 to 118.9	40
M.P. 154 to 158	30
Curve M.P. 165.2 to 165.6	40
Curve M.P. 183.0 to 183.2	40
Curve M.P. 190.0 to 190.3	10

Ripley District

Rice to Blythe	40
Blythe to Ripley	20
Riverview Farms Spur	15
2 Curves M.P. 0.0 to M.P. 1.0	15
M.P. 1.0 to M.P. 6.0	30
3 Curves M.P. 14.6 to 15.2	25
4 Curves M.P. 15.6 to 16.4	20
4 Curves M.P. 16.7 to 17.7	30
5 Curves M.P. 34.6 to 36.4	30

Westward		TIME TABLE						Eastward	
First Class		NO. 5						First Class	
3		February 15, 1977						4	
Leave Daily	Capacity of Sidings In Feet	Ruling Grade Descending—Feet Per Mile	STATIONS			Mile Post	Ruling Grade Descending—Feet Per Mile	Capacity of Sidings In Feet	Arrive Daily
AM 2.05	Yard	0.0	NEEDLES	YL	578.0			Yard	AM 2.30
2.15	5317	0.0	No. 7.5—So. 7.4—						
2.23	7329	0.0	JAVA		585.6	79.2			
2.30	5418	0.0	IBIS		592.4	79.2			
2.36	6716	0.0	No. 5.4—So. 4.6—			104.5			
2.47	7318	21.1	BANNOCK		597.0	73.9			
2.54	5454	59.1	HOMER		601.5	73.9			
3.05	5383	67.0	GOFFS		609.1	7254	1.47		
3.15	7328	57.0	FENNER		618.7	0.0			
3.24	5296	52.8	ESSEX		628.2	0.0	5369	1.30	
3.30		53.8	DANBY		634.7	0.0	5841	1.23	
3.38	6746	11.6	CADIZ		648.1	0.0	9292	1.11	
3.52	5414	0.0	AMBOY		661.5	29.0	5406	1.01	
4.14	6605	54.4	BAGDAD		669.3	35.9	5022	12.55	
4.30	7352	55.4	SIBERIA		678.7	76.0			
4.40		43.3	No. 9.5—So. 7.7—			121.4			
5.05 AM	Yard	0.0	ASH HILL		688.7	57.0	7113	12.39	
Arrive Daily		18.7	PISGAH		708.6	18.4	6682	12.21	
		43.3	NEWBERRY		725.6	40.6	5363	12.06 AM	
			DAGGETT		737.6	31.7		11.57 AM	
			BARSTOW		746.4			1.50 PM	
		NORTH (168.7) (168.0) SOUTH							
(56.2)		Average speed per hour						(62.2)	

SWITCHES—MAXIMUM AUTHORIZED SPEED

Maximum speed permitted through all yard and roundhouse turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH; except for interlocked switches and crossovers at following locations:

Station	Location	MPH
Needles	M.P. 578.4 crossover main track to freight lead	30
	M.P. 580.3 crossover main tracks	50
	West end freight lead	50
Daggett	Two main track crossovers	50
	Turnout to Union Pacific main track	30
Barstow	M.P. 743.6 two main track crossovers	50
	M.P. 743.6 auxiliary yard entry	50
	M.P. 745.7 EE Passenger Siding	20
	M.P. 745.8 Crossover	50
	M.P. 745.9 Yard Entry	50
	M.P. 746.8 WE Passenger Siding	20
	Crossover M.P. 746.8	50
	Departure Yard Lead M.P. 746.8	50
	Inspection Yard Lead M.P. 746.9	50
	Inspection Yard Lead M.P. 748.9	50
	North Departure Yard Lead M.P. 749.0	50
South Departure Yard Lead M.P. 749.1	50	
2 Crossovers M.P. 749.2	50	
Mojave District Jct. M.P. 749A.0	50	
Mojave District Receiving Yard Lead M.P. 749A.9	30	
First District Receiving Yard Lead M.P. 4.3	30	

BARSTOW YARD

Maximum Speed Through Following Power Switches:	
EE and WE Inspection Yard Tracks 1-2 and 1-3	50
Jct. of High and Low Leads on Yard Entry Track from Needles	30
Crossovers Between First and Mojave Dist. Yard Entry Tracks	30
EE and WE All Receiving Yard Tracks	30
EE Departure Yard Tracks D-1 through D-5	30
WE All Departure Yard Tracks	30
EE Departure Yard Tracks D-6 through D-10	15

(Continued on Page 3)

LOS ANGELES DIVISION

NEEDLES, CADIZ AND RIPLEY DISTRICTS 3

Spring Switches at West end North track sidings 15 MPH
 Java, Ibis, Bannock, Homer, Goffs, Fenner, Danby, Cadiz, Amboy, Siberia,
 Ash Hill, Pisgah, Newberry, Daggett

Spring Switches at East end South track sidings 15 MPH
 Newberry, Pisgah, Ash Hill, Bagdad, Amboy, Cadiz, Danby, Essex, Goffs

Rule 97(A): Trains must get clearance card before leaving Needles.
 Santa Fe trains must get clearance card before leaving Barstow.

Rule 251 in effect between Needles and M.P. 737.3.

TCS in effect: On main tracks between M.P. 737.3 and Barstow.

Rule 6(B): Needles & Barstow C-R-Y, Cadiz & Ash Hill B-Y, other sidings B

Rule 93: Yard limits located at Needles.

Rule 94 in effect:

At Needles, between train signs at east and west end passenger yard.

Rule 311: At Barstow, a signal displaying a flashing yellow over lunar aspect is named "APPROACH-THIRTY" and the indication is, "Proceed; approach next signal not exceeding 30 MPH prepared to enter diverging route at prescribed speed; if exceeding medium speed, immediately reduce to medium speed."

Helper locomotives at or near rear of train may use dynamic brake as follows:

Goffs to Cadiz; Ash Hill to Bagdad; Pisgah to Hector; Goffs to Needles.

CADIZ DISTRICT

WESTWARD	TIME TABLE						EASTWARD
Ruling Grade Descending— Feet Per Mile	NO. 5						Ruling Grade Descending— Feet Per Mile
	February 15, 1977						
	STATIONS		Mile Post		Communications Turn Tables and Wyes	Capacity of Sidings In Feet	
		PARKER YL	105.8		C	Yard	
29.6	14.2			31.7			
21.1		VIDAL	120.0	30.6	B	880	
	20.4						
		RICE YL	140.4		B-Y	2471	
25.3	3.6			0.0			
30.6		FREDA YL	144.0	0.0		1500	
	7.0						
31.7		SABLON	151.0			2846	
	18.2			29.6			
31.7		FISHEL	169.2			4949	
	21.3			29.6			
		CADIZ YL	190.5		B-Y	3500	
		(84.7)					

Trains must get clearance card before leaving Parker.

Rule 93: Yard limits located at Cadiz (Cadiz District only), Milligan, Freda to Rice, inclusive and Earp to Parker, inclusive.

Rule 83(B): Train registers located in phone booth at Rice and Cadiz where trains will register as directed.

RIPLEY DISTRICT

WESTWARD	TIME TABLE						EASTWARD
Ruling Grade Descending— Feet Per Mile	NO. 5						Ruling Grade Descending— Feet Per Mile
	February 15, 1977						
	STATIONS		Mile Post		Communications Turn Tables and Wyes	Capacity of Sidings In Feet	
		RIPLEY YL	49.4				
42.8	7.4			21.7			
		BLYTHE YL	42.0	88.4	C-R-Y	Yard	
10.6	26.5						
		STYX YL	18.5	65.0		526	
83.4	16.5						
		RICE YL	0.0		B-Y	2471	
		(49.4)					

Rule 93: Yard limits Ripley to Rice, inclusive.

TRACK SIDE WARNING DEVICES—SPECIAL RULE 7

Needles District		
Location	Type	Locator & Signals Affected
Bridge 587.9	Highwater	Signals 5871 and 5892
M.P. 628.1	Hot Box	Rotating white lights at scanner, at M.P. 627 and at locator (M.P. 626.3)
M.P. 631.3	Hot Box	Rotating white lights at scanner and at locator (M.P. 633.5)
Bridge 642.9	Highwater	Signals 6421 and 6442
M.P. 644.5	Hot Box and Dragging Equip.	Rotating white lights at scanner, at M.P. 646.5 and at locator (M.P. 648.1)
M.P. 651.6	Hot Box and Dragging Equip.	Rotating white lights at scanner and at locator (M.P. 648.9)
M.P. 665	Hot Box and Dragging Equip.	Rotating white lights at scanner and at locator (M.P. 662.5)
M.P. 665	Hot Box	Rotating white lights at scanner and at locator (M.P. 667)
M.P. 709.1	Hot Box and Dragging Equip.	Rotating white lights at scanner and at locator (M.P. 711.8)
M.P. 716.4	Hot Box and Dragging Equip.	Rotating white lights at scanner and at locator (M.P. 714.3)
Cadiz District		
Bridge 186.6	Highwater	Rotating white light on poles located 4 poles west of M.P. 187 and 2 poles west of M.P. 186
Ripley District		
Bridge 10.3	Highwater	Rotating white light on poles located 4 poles west of M.P. 10 and 19 poles east of M.P. 10

STATIONS OR TRACKS NOT SHOWN IN SCHEDULE

Needles District			
Location	Mile Post	Capacity In Feet	Switch Connection
Saltus	658.4	2590	East and West
Klondike	682.0	600	West
Ludlow	693.2	2491	East
Ludlow	693.6	1512	West
Lavic	702.7	500	East
Hector	712.8	800	East and West
Minneola	731.7	800	West
Airport Spur	732.6	9048	East
Gale	735.3	600	East
Cool Water	735.9	558	West
Nebo	741.6	3591	East and West
Cadiz District			
Earp	107.3	534	West
Grommet	131.6	500	East
Milligan	164.0		
Metropolitan Water Dist.	163.9	1711	East and West
Pacific Salt Co.	163.7	212	East and West
Standard Chemical Co.	162.6	988	East and West
Chubbuck	172.7		
Ripley District			
Midland	17.8	308	West
Cox	20.4	1100	East
Inca	22.6	1512	East and West
Mesaville	33.0	472	West
Riverview Farms Spur.	36.3	Lgh. 3.9 m.	West
Miller Farms	44.7	1450	East and West

Normal position of junction switches
 Rice for Cadiz District, Cadiz for Needles District siding.

LENGTHS OF STEMS OF WYES

Location	Feet
Needles	401
Cadiz	Cadiz District
Ash Hill	410
Barstow	Mojave District
Rice	Ripley District
Blythe	504

4 FIRST DISTRICT

LOS ANGELES DIVISION

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS

LOCATION	First District Westward Movements Both Tracks MPH	
	Psg. and Light	Freight
Barstow to San Bernardino	79	60
Adelanto Spur	15	15
2 Curves M.P. 746.4 to 747.0	50	50
2 Curves M.P. 747.0 to 4.6	70	60
2 Curves M.P. 31.8 to 33.8	60	60
2 Curves M.P. 33.8 to 34.3	40	40
3 Curves M.P. 34.3 to 36.6	55	55
Victorville M.P. 36.6 to 37.4	30	30
4 Curves M.P. 37.4 to 39.9	45	45
3 Curves M.P. 39.9 to 42.0	50	50
Curve M.P. 42.0 to 43.7	55	55
Curve M.P. 48.1 to 48.8	65	60
Curve M.P. 48.8 to 49.4	50	50
8 Curves M.P. 49.4 to 51.8	45	45
8 Curves M.P. 51.8 to 56.1	55	55
Curve M.P. 56.1 to 56.6	45	45
Grade (South Track) M.P. 56.6 to 62.2	30	20
Grade (North Track) M.P. 56.6 to 64.3X	30	30
Grade M.P. 62.2 to 72.6	40	35
Grade M.P. 72.6 to 80.8	50	35
M.P. 80.8 to 81.5	20	20

Helper locomotives at or near rear of train may use dynamic brakes:
Summit to San Bernardino

Westward	TIME TABLE					Eastward		
First Class	NO. 5					First Class		
3	February 15, 1977					4		
Leave Daily	Running Grade Descending—Feet Per Mile	STATIONS			Mile Post	Running Grade Descending—Feet Per Mile	Capacity of Sidings In Feet	Arrive Daily
AM 5.15	0.0	BARSTOW		746.4		Yard	PM 11.40	
	35.9	LENWOOD		6.7	41.0			
	37.0	HODGE		13.6	37.0			
	12.7	ORO GRANDE		31.5	37.0	Yard		
	0.0	VICTORVILLE		36.7	37.0	Yard		
	0.0	FROST		38.0	15.8			
	0.0	HESPERIA		45.1	83.4	Yard		
	0.0	LUGO		60.1	81.8			
	116.2	SUMMIT		55.9	84.5			
	116.2	CAJON		62.8	0.0			
	116.2	VERDEMONT		73.9	0.0			
7.05 AM		SAN BERNARDINO		81.3	0.0	Yard	9.42 PM	
Arrive Daily		South Track (81.3) North Track (83.3)					Leave Daily	
(44.1)	Average speed per hour					(42.1)		

Rule 97(A): Santa Fe trains must get clearance card before leaving San Bernardino and Barstow.

TCS in effect on Main Tracks between Barstow and San Bernardino.

Rule 301: Between M.P. 749.8 and San Bernardino controlled and block signals located on field side of track.

Rule 311: At Barstow, a signal displaying a flashing yellow over lunar aspect is named "APPROACH-THIRTY" and the indication is, "Proceed; approach next signal not exceeding 30 MPH prepared to enter diverging route at prescribed speed; if exceeding medium speed, immediately reduce to medium speed."

At Summit, westward passenger trains will make air brake test as prescribed Rule 934-1, item 4.

Rule 6(B) Barstow and San Bernardino C-R-Y Victorville C-R

Main tracks cross at grade separation M.P. 39.1 and are designated as prescribed by Rule 151 either side of crossing.

SWITCHES—MAXIMUM AUTHORIZED SPEED

Trailing movements, spring point details: MPH
Adelanto Spur, one-fourth mile from main track 10

Maximum speed permitted through all yard and roundhouse turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH, except for interlocked switches and crossovers at following locations:

Station	Location	MPH
Barstow	See Needles District Page 2	
Lenwood	Two crossovers	50
Hodge	Two crossovers	50
Frost	Two crossovers	50
Lugo	Two crossovers	50
Summit	Two crossovers	50
Cajon	Two crossovers	50
Verdemont	Two crossovers	50

RULE 956—THE USE OF RETAINERS AND SPEED RESTRICTIONS ON FREIGHT TRAINS SUMMIT TO SAN BERNARDINO, WILL BE AS FOLLOWS:

1. Trains must not exceed an average of 115 tons per car, except unit trains with helper locomotive at or near rear of train must not exceed an average of 135 tons per car.

2. Between Summit and Cajon on South Track speed limit 15 MPH, except: When total brake pipe reduction does not exceed 18 lbs., average weight per car does not exceed 95 tons and total weight does not exceed 4500 tons, speed limit 20 MPH.

(A) Between Summit and Cajon, North Track and between Cajon and San Bernardino on both tracks, speed limit 20 MPH, except: When average weight per car does not exceed 95 tons and total weight does not exceed 6500 tons, speed limit 30 MPH.

(B) Between Cajon and San Bernardino, both tracks, when total weight does not exceed 5000 tons and dynamic brake will control speed of train, without the use of air brakes speed limit 35 MPH.

(C) Trains operated with "Remote Control Equipment" in service and trains with helper at or near rear of train, between Summit and Cajon North Track and between Cajon and San Bernardino both tracks, speed limit 20 MPH except: When total brake pipe reduction does not exceed 15 lbs., speed limit 30 MPH; When tonnage exceeds 6500 tons, speed limit 25 MPH; When tonnage exceeds 12,000 tons, speed limit 20 MPH.

3. On both tracks, between Summit and Cajon when total weight exceeds 3500 tons and between Cajon and San Bernardino when total weight exceeds 5000 tons, speed of train must not be controlled exclusively with dynamic brakes and locomotive brakes.

4. When locomotive will control speed of train and total brake pipe reduction does not exceed 18 lbs., train may proceed without retainers.

5. On either track between Summit and San Bernardino, when total brake pipe reduction exceeds 18 lbs., stop must be made immediately and to control speed of train a sufficient number of retainers must be set in high pressure position and brake system must be fully charged before proceeding. If necessary to hold train while the brake system is being recharged, starting behind locomotive, set a sufficient number of hand brakes. If this stop is made between Summit and Cajon, under these conditions, a 10 minute wheel cooling stop must be made at Verdemont.

6. On South Track between Summit and Cajon, at any time a train stops, the brake system must be fully charged before proceeding. If necessary to hold train while brake system is being recharged and before releasing air brakes, starting behind locomotive, set a sufficient number of retainers and/or hand brakes.

7. When it is known before reaching Summit that locomotive consist does not have operative dynamic brake, one retainer for each 70 tons must be set in high pressure position before leaving Summit and make a 10-minute cooling stop at Verdemont.

8. When retainers are used, not less than fifteen (15) must be set.

9. When retainers are positioned before reaching Summit or retainers are not required and it is known by Conductor and Engineman that prescribed brake pipe pressure is indicated on gauges, train may proceed without stopping; otherwise trains must stop at Summit and ascertain that brakes on rear car apply and release. Train must not proceed until brakes have been released and brake system recharged.

LOS ANGELES DIVISION

FIRST, LUCERNE VALLEY AND REDLANDS DISTRICTS 5

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS First District Eastward Movements Both Tracks

LOCATION	Psg. and Light	MPH Freight
San Bernardino to Barstow	79	60
Adelanto Spur	15	15
M.P. 81.5 to 80.8	20	20
2 Curves M.P. 80.8 to 78.3	60	60
4 Curves M.P. 72.6 to 70.8	45	45
6 Curves M.P. 70.8 to 66.9	50	50
8 Curves M.P. 66.9 to 64.2	40	40
3 Curves M.P. 64.2 to 62.2	50	50
15 Curves (South Track) M.P. 62.1 to 57.1	30	30
2 Curves (South Track) M.P. 57.1 to 56.1	45	45
18 Curves (North Track) M.P. 64.3X to 57.4X	30	30
2 Curves (North Track) M.P. 57.4X to 56.1	45	45
8 Curves M.P. 56.1 to 51.8	55	55
8 Curves M.P. 51.8 to 49.4	45	45
Curve M.P. 49.4 to 48.8	50	50
Curve M.P. 48.8 to 48.1	65	60
Curve M.P. 43.7 to 42.0	55	55
3 Curves M.P. 42.0 to 39.9	50	50
4 Curves M.P. 39.9 to 37.4	45	45
Victorville M.P. 37.4 to 36.6	30	30
3 Curves M.P. 36.6 to 34.3	55	55
2 Curves M.P. 34.3 to 33.8	40	40
2 Curves M.P. 33.8 to 31.8	60	60
2 Curves M.P. 4.6 to 747.0	70	60
2 Curves M.P. 747.0 to 746.4	50	50

Helper locomotives at or near rear of train may use dynamic brake:
Summit to Victorville

	MPH
REDLANDS DISTRICT	20
Crossings M.P. 0.0 to 0.7	5
Crossings M.P. 0.7 to 3.1	15
Redlands, St. Crossings M.P. 8.9 to 9.4	15
Mentone, St. Crossing and Track M.P. 12.0 to 19.7	10

	MPH
LUCERNE VALLEY DISTRICT	
Hesperia to M.P. 25.2	35
M.P. 25.2 to 29.2	20

STATIONS OR TRACKS NOT SHOWN IN SCHEDULE

First District

Location	Mile Post	Capacity in Feet	Switch Connection
Helendale	21.1	1051	East and West (North Track)
Helendale	21.1	1050	East and West (South Track)
Adelanto Spur	34.4	5 Miles	West (North Track)
Thorn	41.1	2995	East and West (North Track)
Summit	54.4	3500	East (North Track)
Alray	59.7X	1000	East (North Track)
Keenbrook	66.3	1580	East (North Track)
Devore	71.0	1700	East and West (South Track)
Ono	75.0	2200	East (North Track)

REDLANDS DISTRICT

Nevada Street	6.7	750	East and West
Craf	11.4	188	East

LUCERNE VALLEY DISTRICT

La Habra Product Inc.	23.5	884	East and West
Chas. Pfizer and Co. Inc.	26.2	1300	East and West

REDLANDS DISTRICT

WESTWARD	TIME TABLE					EASTWARD
Ruling Grade Descending—Feet Per Mile	NO. 5		Mile Post	Ruling Grade Descending—Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet
	February 15, 1977					
	STATIONS					
	PATTON YL	19.7				708
15.8	HIGHLAND YL	18.7	84.5			1220
79.2	EAST HIGHLANDS YL	16.2	73.9			1230
0.0	MENTONE YL	12.0	84.5			790
116.2	REDLANDS YL	8.8	0.0			
116.2	S. P. Crossing SAN BERNARDINO YL	0.0	79.2	C-R-Y	Yard	
	(19.9)					

Rule 93: Yard limits Patton to San Bernardino, inclusive.
Normal position of junction switches San Bernardino for First District.

LUCERNE VALLEY DISTRICT

WESTWARD	TIME TABLE					EASTWARD
Ruling Grade Descending—Feet Per Mile	NO. 5		Mile Post	Ruling Grade Descending—Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet
	February 15, 1977					
	STATIONS					
	CUSHENBURY YL	29.2			C	2900
105.6	SPUR 5 YL	26.1	0.0			700
105.6	BASS YL	15.6	0.0			760
75.0	SPUR 2 YL	11.3	75.0			122
75.0	SPUR 1 YL	7.0	0.0			114
75.0	HESPERIA YL	0.0	75.0		B	
	(29.0)					

Rule 93: Yard limits Cushenbury to Hesperia, inclusive.
Normal position of junction switches Hesperia for First District Yard Track.

SWITCHES—MAXIMUM AUTHORIZED SPEED REDLANDS AND LUCERNE VALLEY DISTRICTS

Maximum speed permitted through all yard turnouts and crossovers—10 MPH;
all main track turnouts and crossovers—15 MPH.

TRACK SIDE WARNING DEVICES—SPECIAL RULE 7

First District

Location	Type	Locator & Signals Affected
M.P. 24.9 Westward Movements	Hot Box and Dragging Equip.	Rotating white lights at scanner, at M.P. 27.1 and at locator (M.P. 28.5)
M.P. 24.9 Eastward Movements	Hot Box and Dragging Equip.	Rotating white lights at scanner, at M.P. 23.5 and at locator (M.P. 21.4)

RAILROAD CROSSINGS AT GRADE (REDLANDS DIST.)

Location	Tracks Governed	Type
South "E" Street	S.P. Crossing	98-B, 98-C

6 SECOND, OLIVE AND ELSINORE DISTRICTS

LOS ANGELES DIVISION

Westward	TIME TABLE						Eastward
First Class	NO. 5						First Class
3	February 15, 1977						4
Leave Daily	STATIONS						Arrive Daily
AM 7.10	0.0	SAN BERNARDINO YL	81.3		C-R-Y	Yard	PM 9.39
7.17	38.7	3.6	84.9	64.9		2647	9.29
7.23	37.7	5.9	91.8	35.4	C-R	Yard	9.24
7.29	32.0	1.9	97.7	14.3	B	2570	9.19
7.33	19.3	4.0	100.9	66.4	C-Y	3154	9.16
7.38	42.2	3.2	104.8	30.6	C	2363	9.12
7.45	59.1	3.9	106.7	0.0		2732	9.09
8.01	63.4	1.9	110.2	0.0		3079	8.53
8.05	63.4	3.5	114.4	0.0		1919	8.50
8.12	75.0	4.2	116.9	39.6	C-Y		8.48
8.30	81.3	2.5	118.2	0.0		3213	8.43
8.38	80.7	1.3	120.2	0.0		2561	8.38
8.50	26.4	1.8	122.4	26.4			8.30
9.05 AM	0.0	3.1	124.2	75.0		852	8.17
31.7	95.0	4.4	127.3	75.2		1850	8.04
	114.6	2.0	131.7	78.1		1702	8.00 PM
	88.7	0.5	133.7	0.0			
	106.9	4.5	134.2	31.7		1698	
	89.8	0.7	138.7	0.0		890	
	37.0	0.6	139.4	0.0			
	59.7	0.8	140.0	0.0	C-R-Y		
						Yard	
						Yard	
		(59.6)					Leave Daily

Trains originating Los Angeles Union Station, Hobart and First Street must get clearance card before leaving Mission Tower.

At Los Angeles: Rules and Regulations of Union Station must be observed within terminal limits.

Regular trains must get clearance card before leaving San Bernardino.

Rule 97(A): Extras need not secure clearance card before leaving San Bernardino on Second District. Westward extras that are to operate west of Upland must secure clearance card before leaving Kaiser. Extra trains and engines must contact West Yard Tower Operator, or Kaiser Operator, to determine that there are no conflicting movements before occupying Second District main track between San Bernardino and Kaiser. Extra trains and engines must, after using Second District main track from San Bernardino and Kaiser, notify West Yard Tower Operator, or Kaiser Operator, as soon as main track has been cleared.

TCS in effect:

On main tracks between Broadway and Redondo Jct. Third Dist.

On main tracks at San Bernardino, between interlocked switches 5th St. and M.P. 82.6.

Rule 93: Yard limits located at: San Bernardino M.P. 82.6 to and including Upland, Pasadena, and Water Street to Broadway.

At San Bernardino between and including westward control signals "A" Yard Office, eastward control signals Rana and eastward control signal M.P. 82.6, signals when displaying a single yellow aspect will be "RESTRICTING" with the indication "PROCEED PREPARED TO ENTER TURNOUT OR TO STOP SHORT OF TRAIN OR OBSTRUCTION."

(31.0)

Average speed per hour

(36.1)

OLIVE DISTRICT

WESTWARD	TIME TABLE					EASTWARD
	NO. 5					
	February 15, 1977					
	STATIONS					
		Mile Post	Ruling Grade Descending—Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings In Feet	
42.2	ATWOOD	0.0	0.0	Y-B	Yard	
42.2	OLIVE S. P. Crossing	2.4	0.0			
	ORANGE	5.8	0.0	Y	3280	
	(5.8)					

TCS in effect on main track between Atwood and Orange.

EL SINORE DISTRICT

WESTWARD	TIME TABLE					EASTWARD
	NO. 5					
	February 15, 1977					
	STATIONS					
		Mile Post	Ruling Grade Descending—Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings In Feet	
132.0	ELSINORE YL	21.9	147.8		847	
89.8	ALBERHILL YL	16.3	79.2		1013	
68.6	ARCILLA YL	8.5	0.0		1498	
	PORPHYRY YL	0.0		Y	Yard	
	(21.9)					

Rule 93: Yard limits Elsinore to Porphyry, inclusive.
Normal position of junction switches: Porphyry for Third District siding.

LOS ANGELES DIVISION

SECOND, OLIVE AND ELSINORE DISTRICTS 7

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS

LOCATION	Second District		MPH
	Psg. and Light	Frt.	
San Bernardino to Los Angeles	65	60	
Rialto, Cucamonga Foothill Spurs, Muscat, Metropolitan and Pasadena Industrial Spurs	15	15	
M.P. 81.5 to 85.2	30	30	
Fontana M.P. 88.5 to 88.9	50	50	
Upland Euclid Ave. Crossing M.P. 101.0	40	40	
Pomona M.P. 106.2 to 107.0	40	40	
La Verne M.P. 107.0 to 108.0	45	45	
4 Curves M.P. 111.8 to 115.5	55	55	
2 Curves M.P. 118.8 to 119.7	55	50	
M.P. 124.8 to 131.0	65	40	
M.P. 131.0 to 131.8	20	20	
M.P. 131.8 to 135.5	30	30	
7 Curves M.P. 135.5 to 138.3	25	25	
4 Curves M.P. 138.3 to 140.0	20	20	
Curve M.P. 140.0 to 140.2	15	15	
OLIVE DISTRICT			40
ELSINORE DISTRICT			
Porphyry to M.P. 4.0		25	
M.P. 4.0 to 22.1		35	
Turnouts & 5 curves M.P. 0.0 to 0.8		10	
6 Curves M.P. 2.1 to 4.0		20	
3 Curves M.P. 4.0 to 4.8		30	
6 Curves M.P. 5.9 to 8.1		30	
2 Curves M.P. 8.7 to 9.4		25	
2 Curves M.P. 14.7 to 14.9		30	
8 Curves & grade M.P. 16.0 to 17.9		15	
2 Curves & track M.P. 17.9 to 22.1		20	

SWITCHES—MAXIMUM AUTHORIZED SPEED

Trailing movements, spring point derails:	MPH
Rialto Foothill Spur, 300 ft. north S.P. Crossing	10
Cucamonga Foothill Spur, 300 ft. north S.P. Crossing	10
Metropolitan Spur, 4068 ft. from main track	10

Maximum speed permitted through all yard and roundhouse turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH; except for spring and interlocked switches and crossovers at following locations:

"I"—Interlocked Switch.	"EE"—East End.
"S"—Spring Switch.	"WE"—West End.

Second District

San Bernardino	I	Crossover between main tracks east of Bridge 82.1	30
Glendora	S	EE and WE siding	15
Pasadena	S	EE and WE siding	15
Broadway	I	Two track junction switch	30

Olive District

Atwood	I	Junction switch	40
Orange	I	WE siding	30
	I	EE siding (main track)	40

RAILROAD CROSSINGS AT GRADE

Second District

Location	Tracks Governed	Type
Rialto Foothill Spur	S.P. Crossing	98-B, 98-C
Cucamonga Foothill Spur	S.P. Crossing	98-B, 98-C
Claremont	S.P. Crossing	Protected by signals 1051 and 1052, when signals in stop position movement over crossing must be made in accordance with Rules 98-B and 98-C
Mission Tower	S.P. & U.P. Crossings	When necessary make movement governed by Rule 321(A), examination each interlocked switch and derail not required. Whistle signals for Mission Tower will be sounded passing microphones located M.P. 135.8 for westward train movements and at Signal 1381 located M.P. 138.3 for yard movements.
Main track —	Union Station 0—	Cudahy lead —0—
		S.P. Downey Ave 000—

STATIONS OR TRACKS NOT SHOWN IN SCHEDULE

Second District

Location	Mile Post	Capacity in Feet	Switch Connection
Rialto Foothill Spur	85.8	2600	West
Fontana	88.8	700	East and West
Muscat Spur	90.4	Lgh. 1.1 m.	West
Gallo Spur	94.6	2200	East
Rochester	95.0	460	East
Cucamonga Foothill Spur	95.8	Lgh. 3.0 m.	East and West
La Verne	107.9	750	East
Metropolitan Spur	108.6	Lgh. 1.0 m.	West
Duarte	121.0	764	East and West
Pasadena Industrial Spur	127.5	2.1 m.	East
Lamanda Park		1772	East and West
Raymond	132.7	475	West
Highland Park	135.9	250	East
Elsinore District			
Mining Spur	3.2	3425	East and West
South Corona	5.0		
Weisel	6.2	1820	East

LENGTHS OF STEMS OF WYES

Location	Feet
Second District	
San Bernardino	3rd Dist. Main Track
San Bernardino	Precooler Lead
Cucamonga	Foothill Spur
Azusa	147
Mission Tower	L.A.U.P.T.
Olive District	
Atwood	600
Orange	Olive Dist. Main track

TRACK SIDE WARNING DEVICES

SPECIAL RULE 7

Second District

Location	Type	Signals Affected
Bridge 92.8	Highwater	Signals 921 and 932
Bridge 93.6	Highwater	Signals 923 and 932
Bridge 97.1	Highwater	Signals 971 and 972

Olive District

Bridge 1.6	Highwater	Westward Control Signal Atwood governing movement from Third District to Olive District and Signal 22 for eastward movement.
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RAILROAD CROSSING AT GRADE

Olive District

Location	Tracks Governed	Type
Olive (1.7 mile west)	S.P. Crossing	TCS

8 THIRD DISTRICT

LOS ANGELES DIVISION

WESTWARD				Rating Grade Descending— Feet Per Mile	TIME TABLE				Mile Post	Rating Grade Descending— Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet	EASTWARD			
FIRST CLASS					NO. 5								FIRST CLASS			
77	75	73	71		February 15, 1977								70	72	74	76
Leave Daily	Leave Daily	Leave Daily	Leave Daily	STATIONS				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily					
				52.8	SAN BERNARDINO	0.0		C-R-Y	Yard							
				52.8	2.4 RANA	1.6	64.4									
				59.8	1.3 COLTON	2.9	0.0	C	Yard							
				52.8	S. P. Crossing 3.8 HIGHGROVE	6.7	34.8	B	Yard							
				14.2	2.5 RIVERSIDE JCT.	9.2	7.4	C-R								
				52.8	0.6 RIVERSIDE	9.8	0.0		Yard							
				52.8	4.2 CASA BLANCA	14.0	63.4	Y	4934							
				52.8	2.4 ABLINGTON	16.4	21.1		3095							
				52.8	3.8 MAY	20.2	0.0		4692							
				30.1	2.6 PORPHYRY	22.8	0.0	Y	8059							
				52.8	1.3 CORONA	24.1	0.0	C-R	8370							
				52.8	5.1 PRADO DAM	29.2	24.8		4735							
				52.8	7.2 ESPERANZA	36.4	21.1		6359							
				42.2	4.2 ATWOOD	40.6	0.0	Y								
				42.2	2.4 PLACENTIA	43.0	13.2									
PM	PM	PM	AM	42.2	3.0 FULLERTON		0.0	C-R		AM	AM	PM	PM			
10.20	6.30	3.00	9.00	33.4	U. P. Crossing 6.3	165.0	26.9			9.05	11.05	4.45	8.55			
				9.2	4.3 LA MIRADA	158.7	37.0		Yard							
				17.6	1.3 SANTA FE SPRINGS	154.4	23.2		4300							
				26.9	1.0 LOS NIETOS	153.1	17.4									
				0.0	S. P. Crossing 1.0 D. T. JUNCTION	152.1	4.2									
				0.0	S. P. Crossing 0.9 PICO RIVERA	151.2	22.7	R	Yard							
				52.8	1.4 BANDINI	149.8	22.7									
				0.0	4.3 HOBART	145.5	37.0	C-R	Yard							
				0.0	U. P. Crossing 2.3 REDONDO JCT.	143.2	37.0	R-T-Y								
				0.0	U. P. Crossing 2.1 FIRST STREET	141.1	59.7		Yard							
				0.0	(70.7) 1.1 MISSION TOWER	140.0	71.8	C-R-Y		8.33	10.33	4.13	8.23			
10.55	7.05	3.35	9.35	31.7	0.8 LOS ANGELES					8.30	10.30	4.10	8.20			
PM	PM	PM	AM		Union Station					AM	AM	PM	PM			
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		WEST (72.6)	(71.6)	EAST			Leave Daily	Leave Daily	Leave Daily	Leave Daily			

(44.2) (44.2) (44.2) (44.2) Average speed per hour (44.2) (44.2) (44.2) (44.2)

Trains originating Los Angeles Union Station must get clearance card before leaving Mission Tower.

Third District trains originating at First Street or Hobart must get clearance card before leaving Hobart.

Trains from Harbor District enroute Third District must get clearance card before leaving Hobart.

Rule 97(A): Santa Fe trains must get clearance card before leaving San Bernardino.

At Los Angeles: Rules and regulations of Union Station must be observed within terminal limits.

TCS in effect on main tracks between San Bernardino and Mission Tower.

At San Bernardino between and including westward control signals "A" Yard Office, eastward control signals Rana and eastward control signal M.P. 82.6, signals when displaying a single yellow aspect will be "RESTRICTING" with the indication "PROCEED PREPARED TO ENTER TURNOUT OR TO STOP SHORT OF TRAIN OR OBSTRUCTION."

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS

LOCATION	Psg. and Light	MPH	Frt.
San Bernardino to La Mirada	79	60	60
La Mirada to Los Angeles	65	60	60
Prenda and La Habra Valley Spurs	15	15	15
2 Curves M.P. 0.0X to 1.5X	15	15	15
2 Curves and Bridge M.P. 0.0 to 0.9	15	15	15
4 Curves M.P. 0.9 to 2.1	20	20	20
3 Curves and Colton M.P. 2.1 to 3.2	30	30	30
2 Curves M.P. 3.2 to 4.0	40	40	40
10 Curves M.P. 4.0 to 6.4	60	60	60
3 Curves M.P. 6.4 to 6.8 (North Track)	40	40	40
3 Curves M.P. 6.4 to 6.8 (South Track)	30	30	30
3 Curves M.P. 6.8 to 9.6	50	50	50
7 Curves M.P. 9.6 to 11.8	60	60	60
2 Curves M.P. 11.8 to 12.5	45	45	45
Curve M.P. 14.7 to 14.9	75	60	60
3 Curves M.P. 15.5 to 16.7	55	55	55
Curve M.P. 16.9 to 17.1	65	60	60
Corona M.P. 22.5 to 25.8	30	30	30
Curve M.P. 30.4 to 30.7 (Westward movement)	65	60	60
Curve M.P. 31.2 to 30.4 (Eastward movement)	65	60	60
4 Curves M.P. 31.3 to 32.8	60	60	60
3 Curves M.P. 33.6 to 35.1	50	50	50
3 Curves M.P. 35.2 to 37.1	65	60	60
2 Curves M.P. 37.5 to 38.5	60	60	60
Placentia M.P. 42.7 to 43.6	50	50	50
2 Curves M.P. 45.2 to 45.7	50	50	50
Fullerton M.P. 165.2 to 164.7	50	50	50
Curve M.P. 161.1 to 160.8	75	60	60
Curve M.P. 156.6 to 155.9	60	60	60
Crossing and Curve M.P. 144.5 to 143.4	30	30	30
2 Curves M.P. 143.4 to 142.9	15	15	15
3 Curves M.P. 141.1 to 140.2	35	35	35
Curve M.P. 140.2 to 140.0	15	15	15

SWITCHES—MAXIMUM AUTHORIZED SPEED

Station	Location	MPH
Trailing movements, spring point derails:		
Rana, switching lead		10
Prenda Spur, one-fourth mile from main track		10
Maximum speed permitted through all yard and roundhouse turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH; except for interlocked switches and crossovers at following locations:		
Rana	Junction switch and crossover	30
Colton	West end siding	30
Colton	Two crossovers	50
Riverside Junction	Union Pacific junction switch when not using crossover	30
Riverside	Two-track junction switch	30
Atwood	Two-track junction switch	40
	Olive District junction switch	40
Fullerton	Fourth District junction switch	50
	Two crossovers M.P. 45.5	50
La Mirada	Two crossovers	50
D. T. Jct.	Two crossovers	50
Bandini	Two crossovers	50
Eastern Ave.	Main track crossovers and lead switch	40
M.P. 144.7	Two crossovers	30

STATIONS OR TRACKS NOT SHOWN IN SCHEDULE

Location	Mile Posts	Capacity in Feet	Switch Connection
Prenda Spur (Prenda)	14.3	Lgh. 2.1 m.	East and West
La Sierra	18.5	440	West
Buena Park	160.5	725	East and West
Nutrilite Spur	160.8	425	East
Wilshire	156.8	2900	East and West
Mojave Spurs	155.8	1375	West
Stephens Spur	155.5	675	East and West
La Habra Valley Spur	154.6	Lgh. 1.2 m.	West

RAILROAD CROSSINGS AT GRADE

Location	Tracks Governed	Type
Colton Tower	S.P. Crossing	TCS
Fullerton	U.P. Crossing	TCS
Los Nietos	S.P. Crossing	TCS
D.T. Junction	S.P. Crossing	TCS
Hobart Tower	U.P. Crossing	TCS
Redondo Junction	U.P. Crossing	TCS
Mission Tower	S.P. and U.P. Crossings	TCS. When necessary make movement governed by Rule 321(A), examination of each interlocked switch and derail not required. Whistle signals for Mission Tower will be sounded passing microphones located M.P. 135.8 for westward train movements and at Signal 1381 located M.P. 138.3 for yard movements.

Main track — Union Station 0— Cudahy lead —0— S.P. Downey Ave 000—

**TRACK SIDE WARNING DEVICES
SPECIAL RULE 7**

Location	Type	Locator and Signals Affected
Bridge 4.6	Highwater	Eastward Automatic Signals 52 and 54 Westward controlled signals east end Bridge.
Bridge 23.5	Highwater	Westward controlled signal at EE Porphyry Eastward controlled signal at WE Porphyry
Bridge 24.9	Highwater	Signal 241 westward movements on main track Controlled signal eastward movements at WE Corona Westward controlled signal governing movements into EE Corona siding.
M.P. 32 Westward	Hot Box	Rotating light at scanner, at M.P. 33.5 and at locator M.P. 35.1
M.P. 32 Eastward	Hot Box	Rotating light at scanner, at M.P. 30.7 and at locator M.P. 29.6

LENGTHS OF STEMS OF WYES

San Bernardino	3rd Dist. Main Track
San Bernardino	Precooler Lead
Casa Blanca	Prenda Spur
Porphyry	Elsinore Dist. Main Track
Atwood	600
Redondo Junction	Harbor Dist. Main Track
Mission Tower	L.A.U.P.T.

10 FOURTH, ESCONDIDO AND FALLBROOK DISTRICTS

LOS ANGELES DIVISION

WESTWARD				Rolling Grade Descending— Feet Per Mile	TIME TABLE NO. 5 February 15, 1977	Mile Post	Rolling Grade Descending— Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet	EASTWARD			
FIRST CLASS										FIRST CLASS			
77	75	73	71							70	72	74	76
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily						
					NATIONAL CITY YL	273.1		Y	Yard				
				26.4	3.8 22ND STREET YL	269.3	24.3	C-R					
PM	PM	PM	AM	0.0	1.8 SAN DIEGO YL	267.5	22.7	Y	Yard	AM	PM	PM	PM
8.20	4.30	1.00	7.00		3.3 OLD TOWN YL	264.2	52.8			11.05	1.05	6.45	10.55
8.27	4.37	1.07	7.07	31.0	6.3 ELVIRA	267.9	65.5			10.50	12.50	6.30	10.40
				51.7	4.9 MIRAMAR	263.0	113.5	Y					
				0.0	3.9 SORRENTO	249.1	0.0		4877				
				116.2	5.0 DEL MAR	244.0	56.0			10.29	12.29	6.09	10.19
8.50	5.00	1.30	7.30	58.1	6.0 ENCINITAS	238.1	52.8						
				63.4	4.2 PONTO	233.8	63.4		5333				
				64.4	6.5 ESCONDIDO JCT.	227.2	69.7	Y					
				15.8	1.0 OCEANSIDE	226.2	7.4	C-R	6096	10.09	12.09	5.49	9.59
9.11	5.21	1.51	7.51	65.5	2.1 FALLBROOK JCT.	224.1	64.9	Y	4569		PM		
				69.0	14.9 SAN ONOFRE	209.2	64.9		4927				
	5.42	2.12		58.1	4.4 SAN CLEMENTE	204.8	26.4			9.49	11.49		
				26.5	5.0 SERRA	199.8	26.4		4956				
9.40			8.20	0.0	2.6 SAN JUAN CAPISTRANO	197.2	60.5					5.21	9.31
				0.0	4.6 GALIVAN	192.6	65.5		4972				
				73.9	4.5 EL TORO	188.1	67.3						
				70.2	5.2 VALENCIA	182.9	0.0		5982				
				63.4	4.4 IRVINE	178.5	22.0	Y					
10.02	6.12	2.42	8.42	0.0	2.9 SANTA ANA	175.5	38.5	C-R	6048	9.21	11.21	5.01	9.11
				14.3	2.9 ORANGE	172.6	32.6	Y	6250				
				39.2	4.8 S. P. Crossing ANAHEIM	167.8	29.6		3044				
10.20	6.30	3.00	9.00	16.9	2.8 FULLERTON	165.0	22.7	C-R		9.05	11.05	4.45	8.55
PM	PM	PM	AM							AM	AM	PM	PM
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(107.7)					Leave Daily	Leave Daily	Leave Daily	Leave Daily
(51.0)	(51.0)	(51.0)	(51.0)		Average speed per hour					(51.0)	(51.0)	(51.0)	(51.0)

FALLBROOK DISTRICT

ESCONDIDO DISTRICT

Westward	TIME TABLE NO. 5 February 15, 1977				Eastward
Rolling Grade Descending— Feet Per Mile	STATIONS	Mile Post	Rolling Grade Descending— Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet
	FALLBROOK JCT. YL	0.0		Y	2077
63.4	6.0 OHAPPO YL	5.9	73.9		
0.0	2.4 JOFEGAN YL	8.4	81.1		2271
79.2	6.7 U.S.M.C. Crossing DE LUZ YL	16.1	132.0		357
0.0	1.8 FALLBROOK YL	16.9	105.6		
	(16.9)				

Westward	TIME TABLE NO. 5 February 15, 1977				Eastward
Rolling Grade Descending— Feet Per Mile	STATIONS	Mile Post	Rolling Grade Descending— Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet
	ESCONDIDO YL	21.1		Y	1376
96.0	4.9 SAN MARCOS YL	16.2	91.3		866
116.2	7.0 VISTA YL	9.2	116.2		1811
116.2	9.2 ESCONDIDO JCT. YL	0.0	116.2	Y	
	(21.1)				

Rule 93: Yard limits Escondido to Escondido Jct., inclusive.

Rule 93: Yard limits Fallbrook Jct. to Fallbrook, inclusive.

No. 71 and extra trains originating must get clearance card before leaving San Diego or 22nd Street.

Rule 151: Between Old Town and crossover at west end of 22nd Street M.P. 268.7 trains will keep to left.

Rule 251 in effect between Old Town and San Diego.

TCS in effect Main tracks, end of double track Old Town to Fullerton and on sidings Ponto and Orange.

Rule 93: Yard limits located end of double track Old Town to and including National City.

Rule 94 in effect at San Diego passenger yard between crossover, Ash Street and Broadway.

Normal position of junction switches: Fallbrook Jct. for Fourth District siding.

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS

Fourth District		Psgr. and Light	MPH
LOCATION			Frt.
National City to Sorrento		79	60
Sorrento to Santa Ana		90	60
South Main Track, M.P. 179.1 to M.P. 176.7		40	40
Santa Ana to Fullerton		79	60
Irvine and Miramar Spurs		15	15
San Diego M.P. 273.0 to 267.3		20	20
San Diego M.P. 267.3 to 264.1		30	30
3 Curves M.P. 262.7 to 261.2		70	60
2 Curves M.P. 260.3 to 259.9		50	50
Curve M.P. 259.1 to 258.6		60	60
3 Curves M.P. 258.5 to 257.9		40	40
6 Curves and Grade M.P. 257.9 to 253.5 Westward		65	60
6 Curves and Grade M.P. 253.5 to 257.9 Eastward		65	50
3 Curves M.P. 253.5 to 252.8		35	35
10 Curves M.P. 252.8 to 251.0		25	25
2 Curves M.P. 250.9 to 250.6		40	40
2 Curves M.P. 250.5 to 250.0		55	55
Curve M.P. 245.8 to 245.5 Westward		60	60
Curve M.P. 244.6 to 244.4 Westward		75	60
3 Curves M.P. 244.4 to 245.8 Eastward		60	60
2 Curves and Crossing M.P. 244.3 to 241.8		50	50
Curve M.P. 237.8 to 237.4		80	60
Oceanside M.P. 227.0 to 225.5		30	30
3 Curves M.P. 224.7 to 223.8		70	60
2 Curves M.P. 209.0 to 208.0		70	60
San Clemente M.P. 208.0 to 202.7		40	40
Curve M.P. 202.7 to 201.2		75	60
Curve M.P. 200.3 to 199.9		45	45
Curve M.P. 199.4 to 199.1		65	60
3 Curves M.P. 198.6 to 197.9		35	35
2 Curves M.P. 197.4 to 197.0		60	60
Curve M.P. 195.9 to 195.8		75	60
Santa Ana M.P. 176.1 to 175.3		40	40
2 Curves M.P. 175.0 to 174.4		60	60
Curve M.P. 173.8 to 167.7		40	40
Curve M.P. 166.9 to 166.6		75	60
Curve M.P. 165.9 to 164.7		50	50

Escondido District

ESCONDIDO DISTRICT	MPH
Hill St. & 17 Curves & track M.P. 0.3 to 7.1	15
9 Curves & track M.P. 9.0 to 14.8	20
6 Curves M.P. 17.9 to 19.5	25
M.P. 19.5 to 21.1	20

Fallbrook District

Fallbrook Jct. to M.P. 7.4	30
M.P. 7.4 to Fallbrook	25
Turnout and 2 curves M.P. 0.0 to 0.5	15
3 Curves M.P. 0.5 to 1.3	20
Curve M.P. 2.3 to 2.5	25
4 Curves M.P. 4.4 to 5.3	25
M.P. 9 to M.P. 11.4	20
M.P. 15.9 to 16.5	20

SWITCHES—MAXIMUM AUTHORIZED SPEED

Maximum speed permitted through all yard and roundhouse turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH; except interlocked switches and crossovers at following locations:

Station	Location	MPH
Fullerton	Fourth Dist. junction switch	50
Orange	WE siding	30
	EE siding (main track)	40
Irvine	EE two tracks—M.P. 179.1	40
Ponto	EE and WE of siding	40
Miramar	WE two main tracks—M.P. 252.9	30
Elvira	EE two main tracks—M.P. 257.9	40
Old Town	Two-track junction switch	30

RAILROAD CROSSINGS AT GRADE

Fourth District		
Location	Tracks Governed	Type
Anaheim (2.0 Mi. East)	S.P. Crossing	TCS
Anaheim Sugar Factory Spur	U.P. Crossing	98-B, 98-C
Fallbrook District		
De Luz	U.S.M.C. Crossing	98-B, 98-C

STATIONS OR TRACKS NOT SHOWN IN SCHEDULE

Fourth District			
Location	Mile Posts	Capacity in Feet	Switch Connection
Irvine Spur	178.7	Lgh. 6.8 m.	East
Browning	180.8	1080	East
Frances	183.1	1467	East and West
Kathryn	183.9	1000	East
Como	180.1		
Stuart	221.7	2543	East and West
Carlsbad	229.3	2500	West
San Diego G. & E. Co. Spur	231.3	1005	East
Solano Beach	241.9	436	East
Pacific Beach	260.3	634	East and West
Escondido District			
Talica	3.7	1347	East and West
Fallbrook District			
Ranch House	7.6		
Marine Base Spur	10.5	615	East and West

LENGTHS OF STEMS OF WYES

Location	Feet
Orange	Olive Dist. Main Track
Irvine	1000
Fallbrook Jct.	Fallbrook Dist. Main Track
Escondido Jct.	Escondido Dist. Main Track
Escondido	300
Miramar	3719
San Diego	Harasthy Street Marine Base Spur
National City	1219

TRACK SIDE WARNING DEVICES—SPECIAL RULE 7

Fourth District		
Location	Type	Signals Affected
Bridge 197.9	Highwater	Signal 1952 and controlled signal west end of siding Serra
Bridge 207.6	Highwater	Eastward Signal 2062 and westward Control Signal located M.P. 209.2
Bridge 246.9	Highwater.	Eastward Signal 2462 and westward Control Signal M.P. 248.8

12 HARBOR AND REDONDO DISTRICTS

LOS ANGELES DIVISION

HARBOR DISTRICT

WESTWARD	TIME TABLE						EASTWARD
↓	NO. 5						↑
	February 15, 1977						
	STATIONS		Mile Post	Ruling Grade Descending—Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings In Feet	
		REDONDO JCT. YL	0.0		R-Y		
52.8	1.6	MALABAR YL	1.5	0.0		Yard	
21.1	1.0	S. P. Crossing NADEAU YL	2.5	0.0			
		S. P. Crossing					
21.1	1.0	WINGFOOT YL	3.5	0.0	B	Yard	
18.5	2.5	WILDASIN YL	6.0	0.0		Yard	
10.5	1.3	VAN NESS YL	7.3	10.6		Yard	
0.0	0.7	HYDE PARK YL	8.0	57.6		Yard	
52.8	1.9	INGLEWOOD YL	9.9	52.8		Yard	
79.2	3.7	LAIRPORT YL	13.6	79.2	B	5100	
11.6	1.2	S. P. Crossing EL SEGUNDO YL	14.8	52.8	Y		
		S. P. Crossing					
52.6	1.9	LAWDALE YL	16.6	51.1		Yard	
52.3	3.5	ALCOA YL	20.1	58.4	B	Yard	
10.9	1.6	TORRANCE YL	21.7	26.4	C	Yard	
24.3	1.6	IRONSIDES YL	23.3	0.0		Yard	
79.2	3.3	WATSON YL	26.6	52.8	C-R-Y	Yard	
	1.4	WILMINGTON YL	28.0		B	Yard	
	2.0	PIER A YARD YL			C	Yard	
	1.1	WEST THENARD S. P. Crossing					
	2.5	LONG BEACH					

(28.0)

REDONDO DISTRICT

WESTWARD	TIME TABLE						EASTWARD
↓	NO. 5						↑
	February 15, 1977						
	STATIONS		Mile Post	Ruling Grade Descending—Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings In Feet	
		REDONDO BEACH YL	20.3			Yard	
	0.0	HERMOSA BEACH YL	18.7	42.2		Yard	
	0.0	MANHATTAN BEACH YL	17.0	42.2			
52.8	2.2	EL SEGUNDO YL	14.8	47.6	Y	Yard	

(5.4)

Rule 93: Yard limits Redondo Beach to El Segundo, inclusive.

RAILROAD CROSSINGS AT GRADE Harbor District

Location	Tracks Governed	Type
Redondo Junction Nadeau	U.P. Crossing S.P. Crossing	TCS Automatic interlocking, 321(C), 10 MPH
Nadeau (0.3 Mi. East)	S.P. Crossing	Automatic interlocking, 321(C), 15 MPH
El Segundo (0.2 Mi. East)	S.P. Crossing	Rule 98(A)—10 MPH while head end is passing over crossing
West Thenard	S.P. Crossing	Automatic interlocking, 321(C)

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS

LOCATION	MPH
HARBOR DIST.	30
Torrance Oil Spur	15
Alcoa Spur	15
M.P. 0.0 to St. Crossing M.P. 1.6	12
M.P. 1.6 to M.P. 10.1	15
St. Crossing M.P. 13.1	15
M.P. 20.0 to 23.0 Torrance	15
St. Crossing M.P. 25.9	10
St. Crossing M.P. 26.0	10
St. Crossing M.P. 26.1	10
Between Watson and Pier A Yard	10
REDONDO DIST.	15

Trains and engines will reduce speed to 5 MPH 250 feet in advance and until engine occupies the following crossings:
 Rosecrans Avenue—M.P. 15.5
 Pacific Avenue—M.P. 16.2
 Fifteenth Street—M.P. 16.8
 Manhattan Beach Boulevard—M.P. 17.1
 Pier Avenue—M.P. 18.7

Rule 93: Yard limits Pier A to Redondo Jct., inclusive.

Movements over Harbor Belt Line and Southern Pacific joint tracks between McFarland Ave. and Pier A Yard and between Avalon Blvd. and San Pedro will be made as prescribed by Rule 93.

Normal position of switches of crossover located 100 feet west of Avalon Blvd. is lined for crossover movement.

Authority must be secured from Harbor Belt Line Yardmaster before making movements in either direction between Watson and Pier A Yard, from Watson to San Pedro and from Sixth Street Yard, San Pedro to Watson.

Movements over Southern Pacific joint track between West Thenard and Long Beach will be made under provision of Rule 93 and must be authorized by Southern Pacific Trainmasters Office, Long Beach.

Spring point derail located at 2414 feet west of M.P. 27, west end Watson Yard. Normal position set to derail for westward movements.

Light indicators are located between Malabar and Wingfoot:

For westward movement at M.P. 1.7 with 1000 foot approach circuit.

For eastward movement at M.P. 2.3 with 1000 foot approach circuit.

Indicators are lighted continuously displaying Red aspect, except when engines or cars foul approach circuit, indicator will display a Green aspect if limits are not occupied.

If indicator does not change to a Green aspect when engines or cars foul approach circuit, Stop must be made and movement must be protected.

When clearing the main track within the above limits, main track switch must not be returned to normal until engine and cars are clear of main track. Main track must not again be fouled without providing proper protection and in addition main track switch must be opened and wait five minutes.

SWITCHES—MAXIMUM AUTHORIZED SPEED

Maximum speed permitted through all yard turnouts and crossovers—10 MPH;
 All main track turnouts and crossovers—15 MPH.

LENGTHS OF STEMS OF WYES

Location	Feet
Redondo Junction	Harbor Dist. Main Track
El Segundo	Redondo Dist. Main Track
Watson	3800

Normal position of junction switches
 El Segundo for Harbor District.

SAN JACINTO DISTRICT

WESTWARD		TIME TABLE NO. 5 February 15, 1977	Mile Post	Ruling Grade Descending— Feet Per Mile	Communications Turn Tables and Wyes	Capacity of Sidings in Feet	EASTWARD	
↓	↑							
	Ruling Grade Descending— Feet Per Mile	STATIONS						
	0.0	HIGHGROVE YL S. P. Crossing 7.2	0.0	116.2		1018		
	52.8	BOX SPRINGS YL 2.4	7.2	31.4		1555		
	17.6	MAROH FIELD YL 1.0	9.6	0.0	C			
	47.6	ALESSANDRO YL 2.9	10.6	0.0		2046		
	28.6	VAL VERDE YL 4.8	13.6	9.5	Y	1105		
	63.4	PERRIS YL 4.4	18.3	21.6	B	Yard		
	42.2	ETHANAC YL 6.2	22.7	49.3		1030		
	0.0	WINCHESTER YL 7.1	28.9	52.8		1570		
	63.4	HEMET YL 2.3	36.0	4.3	B	Yard		
		SAN JACINTO YL	38.3		C-Y	Yard		
		(38.3)						

Rule 93: Yard limits Highgrove to San Jacinto, inclusive.
Normal position of junction switches: Highgrove for Third District.

MAXIMUM AUTHORIZED DISTRICT SPEED FOR TRAINS

Location	MPH
San Jacinto District	40
Highgrove to Box Springs	20
Curve M.P. 18 to 19.2	15
M.P. 34.8 to 35.7	15
M.P. 35.7 to San Jacinto	10

SWITCHES—MAXIMUM AUTHORIZED SPEED

Maximum speed permitted through all yard turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH.

RAILROAD CROSSING AT GRADE

Location	Tracks Governed	Type
Highgrove (1.5 Mi. West)	S.P. Crossing	Automatic interlocking Rule 321(C)

STATION OR TRACKS NOT SHOWN IN SCHEDULE

Location	Mile Post	Capacity in Feet	Switch Connection
Lily Cup	0.6	545	East and West
Mayer Farms	15.9	920	East and West
Granite Spur	14.5	Lgh. 0.9 m.	Wye
Ellis	19.9	800	East
Egan	33.1	760	East and West

LENGTHS OF STEMS OF WYES

Location	Feet
March Field	March Field Spur
Val Verde	Granite Spur
San Jacinto	640

1. Rule 1: Standard clocks are located at on duty points at Needles, Parker, Blythe, Barstow, San Bernardino, Redondo Jct. roundhouse, Hobart yard office, Torrance, Fullerton, Oceanside, San Diego and 22nd St. yard office.

2. Union Pacific trains using joint tracks between Riverside Jct. and Daggett will be governed by AT&SF Time Table and Rules, Operating Department, and having complied with their company's time regulations may proceed over joint tracks.

3. Within TCS limits, where maximum speed exceeds 20 MPH a train or engine must not clear the main track through a hand-thrown switch, not electrically locked, for the purpose of meeting or passing or being passed by another train or engine.

4. Rule 80: Bulletin books are located at Needles, Parker, Blythe, Barstow, Victorville, San Bernardino, Kaiser, Corona, Fullerton, Pico Rivera, Union Station, Redondo Junction, Hobart, Torrance, Watson, Santa Ana, Oceanside, San Diego, and 22nd Street.

5. Rule 125: All sidings having hand-thrown derails will have derail locked off rail, except when engines or cars are left unattended on siding.

6. Rule 759. Following is a list of structures:
Barstow, First St. viaduct;
San Bernardino, Mt. Vernon Ave. viaduct;
Colton, East end track E Griffin Wheel Co.;
First Street, viaduct over old passenger tracks; and
Los Angeles, Union Station, train sheds.

7. Rule 105(A) Track side Warning Devices:
When dragging equipment indicators actuated, stop and inspect train.

When rock slide indicated, trains must proceed at restricted speed until track at this location is known to be clear.

When trains stopped at signals in connection with high water indicator, bridge and track must be inspected before proceeding over bridge.

Abnormal heat from hot wheels (sticking brakes), overheated journals, traction motor or suspension bearings, will actuate track side indicators causing rotating white light to illuminate at detector (scanner) and locator locations. Dragging equipment will also activate wayside indicators.

When actuated by a train, stop must be made at locator, readout observed and instructions in locator cabinet complied with. If abnormal heat or dragging equipment is not found on equipment indicated by locator, close inspection must be made on three cars (or units) on either side of indicated equipment.

If lamp or counters fail to show location of overheated equipment, the entire train must be thoroughly inspected for hot journals, wheels, bearings, or dragging equipment.

On inspections required above, give particular attention to heat of journals and hub of wheels. If nothing found wrong, train may proceed at prescribed speed, but must make two stops within next 60 miles at approximately 30 mile intervals for thorough inspection of train, unless train passes an intervening hot box detector or train is delivered to terminal where mechanical inspection is made. At crew change points where mechanical inspections are not made, inbound crew will inform relieving crew of existing condition.

When track side indicator is illuminated before train reaches scanner, stop must be made and locator observed unless otherwise instructed by train dispatcher. If any lamps are lighted, be governed by the three preceding paragraphs. If no lamps are lighted, train may proceed at prescribed speed and be observed closely enroute.

Continued on next page

14 SPECIAL RULES

LOS ANGELES DIVISION

When suspected journal on freight equipment indicated by locator is a roller bearing journal, the car must be set out unless cause found to be sticking brakes and condition corrected.

When a train is stopped by detector, Form 1572 Standard must be filed at first office of communication.

Trains must not exceed speed of 30 MPH while moving over hot box detectors (scanners) when:

- (a) it is snowing or sleeting; or
- (b) there is snow on ground which can be agitated by a moving train.

SPEED REGULATIONS

8. (A) Maximum authorized speed for freight trains handling one or more empty cars 55 MPH.

(Cabooses and cars loaded with empty trailers or empty containers are considered loads.)

(B) Freight trains averaging 85 tons or more per car or having 5000 tons or more, must not exceed 45 MPH.

9. Between Needles and Victorville, freight trains may observe passenger train speed but not to exceed 70 MPH, except Needles District eastward M.P. 701.5 to M.P. 696.2 and from M.P. 686.2 to M.P. 671.4 and westward from M.P. 689.5 to M.P. 693.7, provided:

- (1) Maximum district speed is 60 MPH for freight trains.
- (2) Train does not exceed 5000 tons.
- (3) Train does not exceed 90 cars.
- (4) Train does not average more than 75 tons per car.
- (5) Locomotive can control speed to 70 MPH without use of air brakes.

10. In freight and mixed service with dynamic brake not in use maximum speed on descending grades as follows:

1.0 to 1.5% (52.8 to 79.2 feet per mile)	30 MPH
1.5 to 2.0% (79.2 to 105.6 feet per mile)	25 MPH
2.0% (105.6 feet per mile)	15 MPH

11. Where street or highway crossings are shown, speed limit applies only while head end of train is passing.

12. Trains or engines using a siding must not exceed speed for that turnout.

13. MAXIMUM SPEED OF ENGINES

Engines	Forward or dead in train MPH	When not controlled from leading unit MPH
AMTRAK 100-799 5940-5948	90*	45
All 1150, 1160 1215, 1418, 1500 and 2322 Class Units	45	45
ALL OTHER CLASSES	70	45

Forward speed applies when lead unit of train is controlling and is in backing position.

EXCEPTION: When such unit is car body type, maximum authorized speed 45 MPH.

*Engine without cars must not exceed 70 MPH.

Light Forward

Diesels without dynamic brakes in use	Speed (MPH)
Ash Hill-Bagdad	24
Goffs-Needles	24
Summit to Victorville	30
Summit-Cajon	15
Cajon-San Bernardino	20

14. Rule 108: Equipment listed below must not be moved through water above top of rail greater than the depths and not in excess of the speeds shown:

MAXIMUM DEPTH OF WATER THROUGH WHICH ENGINE MAY BE OPERATED AND MAXIMUM SPEEDS IN SUCH OPERATION

	Maximum depth above top of rail (inches)	Maximum speed (MPH)
All Classes	4	5

15. Derricks, cranes, pile drivers, spreaders and similar machinery moving on their own running gear must not be moved in trains except on authority of trainmaster, and trains handling such equipment must not exceed speeds indicated below:

District	Pile Drivers AT-199454 AT-199455 AT-199457 AT-199458 AT-199459 Derrick AT-199787 and Jordan Spreaders M.P.H.	Other Wrecking Derricks M.P.H.	Pile Drivers AT-199452 AT-199453 AT-199456 AT-199476 AT-199482 Other Machines M.P.H.
Needles, Cadiz, First, Second, Third and Fourth Districts	45	40	30
All other Districts	15	15	15

Derrick AT 199787 and pile drivers must be handled in trains next to engine.

All foreign line scale test cars must be handled in trains immediately ahead of caboose at speed not exceeding 50 MPH.

THE SANTA FE EMPLOYES COAST LINES HOSPITAL ASSOCIATION

DR. ERNEST E. PARKS, MEDICAL DIRECTOR-CHIEF EXECUTIVE OFFICER
Los Angeles, Calif.

R. W. WELLS, GENERAL WATCH INSPECTOR
Topeka, Kansas

For name and address of local surgeons and local watch inspector, refer to bulletin book.

AVOID DAMAGE—SWITCH CUSTOMERS' CARS CAREFULLY

Damage to freight or car can be avoided by always keeping coupling speed within the safe range—NOT OVER 4 MILES PER HOUR—
A BRISK WALK.

Handle freight carefully and keep our customers.

IT'S EVERYBODY'S JOB ON THE SANTA FE!

**FREIGHT TRAIN SCHEDULE (For Information Only)
WESTWARD**

Trains	Needles	Barstow		San Bernardino		Hobart
	Lv.	Arr.	Lv.	Arr.	Lv.	Arr.
118	10:15A	2:15P	3:30P	6:30P	7:00P	9:00P
128	6:15P	10:15P	11:30P	2:30A	3:00A	5:00A
138	8:10A	12:40P				
188	2:35P	6:15P	7:00P	9:40P	10:10P	11:59P
308	11:45A	3:55P	5:15P	8:15P	8:50P	11:10P
318	3:55P	8:15P	9:30P	12:30A	1:05A	3:10A
328	7:20P	11:20P	12:01A	2:50A	3:20A	5:55A
338	12:25A	4:25A				
348	4:25A	8:45A				
358	8:25A	12:45P				
408	5:10A	9:40A				
508	4:10P	9:10P				
568	7:35P	11:20P	12:05A	2:35A	2:45A	4:30A
668	3:10P	6:50P	7:35P	10:05P	10:15P	11:59P
808			2:00A	5:00A	5:40A	7:45A
818			2:00P	5:00P	5:40P	7:45P
828			3:00P	6:00P	6:40P	8:45P
898			9:00A	12:30P	1:15P	3:00P
119	5:00A	9:00A				
129	7:00P	11:00P				
189	11:10A	2:20P				
199	4:10A	7:20A				
309	1:45P	6:15P				
319	1:55A	6:15A				
679	10:25P	3:25A				
709	1:35A	5:10A				
118-9	5:40P	11:10P	11:40P	2:40A	3:30A	5:35A
128-9	1:40A	6:10A	7:30A	10:30A	11:20A	1:35P
308-9	3:55P	7:55P	9:25P	12:25A	1:35A	3:50A
318-9	7:55P	12:25A	1:55A	4:55A	5:35A	7:50A
328-9	11:55P	4:25A	5:55A	8:55A	9:35A	11:50A
338-9	4:25A	2:55A	10:15A	1:35P	2:05P	4:10P
348-9	8:25A	1:25P	2:25P	5:25P	6:05P	8:10P
358-9	12:25P	5:25P	6:25P	9:25P	10:05P	12:10A
508-9	6:45P	11:45P				
568-9	5:25A	10:25A	11:40A	3:40P	4:30P	7:05P
668-9	6:15P	10:30P	11:30P	2:30A	3:00A	5:15A
119-9	2:40P	7:30P				
129-9	4:40A	9:30A				
309-9	5:55P	10:45P				
319-9	5:55A	10:45A				

**FREIGHT TRAIN SCHEDULE (For Information Only)
EASTWARD**

Trains	Hobart	San Bernardino		Barstow		Needles
	Lv.	Arr.	Lv.	Arr.	Lv.	Arr.
801	12:01A	2:30A	3:15A	6:00A	7:15A	11:10A
803					12:30A	4:10A
804					4:00A	8:00A
805					1:00P	5:00P
808	6:30A	8:45A	9:15A	12:45P		
811	8:00A	10:30A	11:30A	2:15P	3:30P	7:10P
813					2:30A	6:10A
817					6:30P	10:00P
823					4:30A	8:10A
827					6:30P	11:00P
833					6:30A	10:10A
843					8:30A	12:10P
853					10:30A	2:10P
865					10:30A	2:10P
876					11:30A	2:55P
881	4:00A	5:35A	5:40A	8:30A	9:00A	12:40P
883	5:30A	7:15A	7:45A	10:15A	11:00A	2:30P
885	12:01A	1:45A	2:15A	5:00A		
901					7:40P	11:25P
903					12:30P	4:10P
913					2:30P	6:10P
923					4:30P	8:10P
933					6:30P	10:10P
943					8:30P	12:10A
953					10:30P	2:10A
963					5:15P	9:15P
991					3:35P	6:35P

SPEED TABLE

Table of speeds (minutes and seconds per mile, in terms of miles per hour).

Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
..	36	100	..	58	62.1	1	40	36.0
..	37	97.3	..	59	61.0	1	42	35.3
..	38	94.7	1	..	60.0	1	44	34.6
..	39	92.3	1	02	58.0	1	46	34.0
..	40	90.0	1	04	56.2	1	48	33.3
..	41	87.8	1	06	54.5	1	50	32.7
..	42	85.7	1	08	52.9	1	52	32.1
..	43	83.7	1	10	51.4	1	54	31.6
..	44	81.8	1	12	50.0	1	56	31.0
..	45	80.0	1	14	48.6	1	58	30.5
..	46	78.3	1	16	47.4	2	..	30.0
..	47	76.6	1	18	46.1	2	05	28.8
..	48	75.0	1	20	45.0	2	10	27.7
..	49	73.5	1	22	43.9	2	15	26.7
..	50	72.0	1	24	42.9	2	30	24.0
..	51	70.6	1	26	41.9	2	45	21.8
..	52	69.2	1	28	40.9	3	..	20.0
..	53	67.9	1	30	40.0	3	30	17.1
..	54	66.6	1	32	39.1	4	..	15.0
..	55	65.5	1	34	38.3	5	..	12.0
..	56	64.2	1	36	37.5	6	..	10.0
..	57	63.2	1	38	36.8	12	..	5.0

708	Lv. Parker	5:30A	3254	Lv. Los Angeles	7:30P
	Ar. Barstow	12:01P		Ar. San Diego	12:40A
807	Lv. Barstow	10:00A	3253	Lv. San Diego	12:40A
	Ar. Parker	4:00P		Ar. Los Angeles	6:30A
788	YK Coal		3251	Lv. San Bernardino	3:40P
887	Coal Mtys			Ar. San Diego	9:00P
			3252	Lv. San Diego	9:00P
				Ar. San Bernardino	2:30A

