

# **NORTHERN PACIFIC RAILWAY COMPANY**

## **Rocky Mountain Division**

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### **Special Instructions No. 3**

**In Effect at 12:01 A. M. Mountain  
or 105th Meridian Time.**

**Sunday, July 3, 1938**

**These instructions govern Current Time Table.  
Read carefully and be positive that you have the  
Current Time Table, also copy of Current Special  
Instructions.**

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**W. C. SLOAN,  
General Manager.**

**G. N. SLADE,  
Superintendent.**

**T. F. LOWRY,  
Assistant General Manager.**

**P. H. McCAULEY,  
General Superintendent of  
Transportation.**

# SPECIAL INSTRUCTIONS

## FIRST SUBDIVISION.

### (MAIN LINE)

1. At Logan—Eastward trains heading into the yard will set the first two switches for the crossover movement and be governed by automatic signal 1648. If this signal does not indicate proceed movement may be made protecting against second subdivision first class trains.
2. At Trident—No. 5 track cannot be used across coal hopper at cement plant.
3. At East Helena—Overhead bridge at cinder track just east of American Smelting and Refining Company ore bins will not clear engines nor box cars.
4. Extra Freight Trains—Bozeman to Logan, will run via Manhattan, Logan to Bozeman, will run via Powers, unless otherwise instructed by train order.
5. Double Track—The normal position of switches at Livingston and Bozeman is for eastward track.
6. At Muir and West End—Remote control switches at end of double track are electrically operated and also hand-throw switches. To operate by hand unlock power lever and throw in reverse position. Switch can then be thrown with hand-throw lever. When switches are restored to normal position the power lever must also be restored to normal position.  
  
Between Muir and West End—Interlocking Rules govern except that for movement to single track trains must not pass an interlocking stop signal without train order authority. Switching movements inside the interlocking limits may be made on authority from operator at West End, in which case switches will be thrown by hand.  
Trains moving on dwarf signal indication must approach signals at opposite end of tunnel at restricted speed.  
Proceed dwarf signals indicate the route is set and block clear.  
  
At Muir—Helper engines will not require clearance for movement Muir to Livingston moving with current of traffic if interlocking signal indicates proceed. Operator at West End must obtain authority from the train dispatcher before displaying the proceed indication for this movement. When the eastward dwarf signal at end of double track displays a yellow indication helper engines will go in on westward siding and report on telephone for instructions. Authority must be secured from the train dispatcher before engines leave the spur to make a reverse movement on eastward main track.  
The operator must obtain authority from the dispatcher before lining the remote control switch at Muir for a movement to the westward main track. Such authority will not be given by the dispatcher if there is a train on the westward track that has departed Livingston, nor will the dispatcher clear a train at Livingston until the movement is completed after having given permission for such a lineup.  
When it is necessary to make a move into the siding at Muir and the dispatcher cannot give permission as above outlined, it will be necessary for the crew to handle both the spring switch at west end of the siding and the power switch at the end of double track by hand.
7. Pusher District—Between Livingston and Bozeman and between Townsend and Helena.
8. Yard Limits—Tracks between yard limit signs east of Muir and west of West End, will be operated as one yard. Westward trains will not require rear end protection between end of double track at Muir and west switch of westward siding at West End. Eastward trains will not require rear end protection between end of double track at West End and east switch of crossover at Muir.

9. Bridge and Engine Restrictions—  
At Bozeman and Townsend, engines must not pass over hopper pit of coal docks.  
At Manhattan, Class W-3 and heavier engines must not use wye.  
At East Helena, engines heavier than class W will not be used on McClelland Spur.  
At Logan, engines heavier than Class W not permitted on hopper pit of coal dock.  
Z-5 and Z-6 engines twenty (20) miles per hour over Bridge 164 Gallatin River.  
Z-5 engines, twenty (20) miles per hour over Bridge 143, near Story.

10. Speed Restrictions—At Livingston, eastward freight trains eight (8) miles per hour.  
Between Muir and Livingston and between West End and Bozeman, passenger trains, twenty-five (25) miles per hour on curves when running against the current of traffic descending mountain grade.  
At Belgrade, all trains thirty (30) miles per hour over Broadway Street, just west of passenger station.  
At Manhattan, between 3:30 P. M. and 5:00 P. M. fifteen (15) miles per hour over Broadway Street, just west of station.  
Thirty-five (35) miles per hour between Bozeman and Logan via Powers.  
See also mountain grade operation and bridge restrictions.

11. Mountain Grade Operation—  
Mountain grade, Livingston to 1400 West of M. P. 135. Speed of passenger trains descending seven (7) minutes Muir to Hoppers and thirteen (13) minutes Hoppers to Livingston; six (6) minutes West End to Chestnut and fourteen (14) minutes Chestnut to Bozeman. Light engines and freight trains descending must not exceed one (1) mile in three (3) minutes. Passenger trains must not use less than two and one-half (2½) minutes and freight trains not less than four (4) minutes through Bozeman tunnel. All trains ascending forty (40) miles per hour Livingston to Muir and thirty (30) miles per hour M. P. 134 to West End. Speed of passenger trains descending mountain grades will apply to trains handling berry, cherry, lettuce or silk specials. Air brake tests will be made as outlined on test card form 3797. Train and enginemen are responsible for test as required by transportation rules and filling out form 3797 before leaving Bozeman and Livingston.

On eastward freight trains the retaining valves will be turned up on all loads and one-half of the empties, alternating the empties.

On westward freight trains with all empty cars, the retainers will be turned up on one-third of the number of cars in train, alternating, beginning at the engine. On trains consisting of loads and empties, retainers will be turned up on all loads and one-third of the empties, alternating the empties.

On cars equipped with double pressure retaining valves, the handles must be turned to high pressure position (diagonal) on heavy loads, and low pressure position (horizontal) on empty cars and on light loads or merchandise loads.

Eastward freight trains will carry ninety (90) pounds train line pressure between West End and Livingston and westward freight trains will carry seventy (70) pounds train line pressure between Muir and Bozeman.

12. Register Stations—  
Livingston.  
Bozeman.  
Logan.  
Helena.  
East End Helena Yard for westward light engines.

13. Register Exceptions—At Bozeman and Logan, trains may register by Form 608 and will not require a clearance if train order signal is in "proceed" position.

14. Commercial Spurs—

	Miles from Livingston	Car Capacity
Montellis .....	19.7	28
Catron .....	27.3	7
Bisel .....	28.3	4
Kerns .....	31.6	3
McLees .....	50.5	6
Penwell .....	111.5	8

15. Cross-overs: Livingston.  
Hoppers.  
Muir.  
Chestnut.  
Bozeman.
16. Lap Sidings: Townsend.  
Winston.

## SECOND SUBDIVISION. (MAIN LINE)

- At Logan—Train order signal does not govern second sub-division trains.
- At Whitehall—Station platform will not clear man on steps of cars nor engines.
- Double Track—The normal position of switches at M. U. Transfer and Butte is for westward track.
- Helper District—Between Whitehall and Butte.
- Yard Limits—Tracks between yard limit signs east of Homestake and west of Highview will be operated as one yard. Tracks between yard limit signs east of M. U. Transfer and west of Butte will be operated as one yard.
- Bridge and Engine Restrictions—  
Bridge 51 Spire Rock Viaduct, Bridge 52 Big Pipestone Creek Viaduct, Bridge 63 Ealean Gulch Viaduct—engine classes Z-5, ten (10) miles per hour; A-2, A-3 and Z-6, thirty (30) miles per hour.  
At Logan—Engines heavier than Class W not permitted on hopper pit of coal dock.  
At Whitehall—Engines must not pass over hopper pit of coal dock.
- Speed Restrictions—At M. U. Transfer thirty (30) miles per hour over highway crossing in middle of yard. See also mountain grade operation and bridge restrictions.
- Mountain Grade Operation—Mountain grade two (2) miles east of Pipestone to two (2) miles east of M. U. Transfer. When trains are directed by train order to meet at Pipestone, Spire Rock, Welch, Homestake, Highview or Skones, the ascending train will unless otherwise directed take siding, except that descending light engines will take siding. Freight trains and light engines must not exceed one (1) mile in three (3) minutes and passenger trains one (1) mile in two (2) minutes descending, except passenger trains will use fourteen (14) minutes Homestake to Welch, eleven (11) minutes Welch to Spire Rock and eleven (11) minutes Spire Rock to Pipestone; all trains ascending thirty (30) miles per hour Pipestone to Homestake and from M. P. 68 east of M. U. Transfer to Homestake.  
Speed of passenger trains descending mountain grades will apply to trains handling berry, cherry, lettuce or silk specials.  
Air brake test will be made and inspection card filled out before leaving Homestake on westward and Highview on eastward freight trains as outlined in form 3797. The air brakes must be charged to a maximum of ninety (90) pounds pressure and conductors must know by caboose gauge that this pressure is attained before making terminal test. Enginemen will maintain a working basis of ninety (90) pounds pressure descending mountain grade.  
Retaining valves must be used on all cars, the handles turned to high pressure position (diagonal) on heavy loads, and low pressure position (horizontal) on light loads and empty cars. Eastward freight trains will stop at Spire Rock to cool wheels and inspect train.
- Register Stations—  
Logan.  
Whitehall for second class and inferior trains.  
Butte.  
M. U. Transfer for helper engines; to be telephoned by engineman to operator at Butte.

	Miles from	Car
	Logan	Capacity
Ingle side .....	17.7	5

## THIRD SUBDIVISION. (MAIN LINE)

- At Helena—End of double track is at first cross-over switch west of Roberts Street crossing. Normal position of switch is for eastward track.

- At Austin, south siding will be used as westward siding and north siding as eastward siding.
- At Ventilating Plant—When leaving cars on tail of spur, the switch must be lined for the track leading to the trestle.
- At Blossburg, south siding will be used as eastward siding and north siding as westward siding.
- At Garrison, eastward trains moving against the current of traffic into Garrison will re-enter the eastward main track at cross-over just west of telegraph office.
- At Austin and Skyline, the derail switch at the east end of Skyline siding and at the east end of the westward siding at Austin will be kept closed when sidings are clear.
- At Austin, Skyline and Garrison—The east switch of the westward siding at Austin, the east switch of the siding at Skyline, and the east and west switches of the cross-over from the third to fourth sub-division at Garrison are remote control. At Austin and Skyline the normal position of the switches is for the main track. At Garrison the normal position of the east switch is for the third sub-division and the west switch for the fourth sub-division. Trains finding Signals 11.8, 11.9 and 12.0 at Austin; 17.5, 17.6 and 17.8 at Skyline, and the Home Signals at Garrison in "Stop" position will examine the switch and if not in proper position, first throw "POWER LEVER", then operate switch with the "HAND THROW LEVER." "POWER LEVER" must not be returned to normal position until after the final move over the switch is made. Both levers must be left in normal position and locked. If signals still indicate "Stop", trains may proceed, complying with automatic block signal rules.
- Helper District between Helena and Blossburg.
- Pusher District between Garrison and Blossburg.
- Train Inspection—Freight trains will stop for inspection as the Conductor directs, but westward freight trains must be inspected at Garrison, Drummond or Bearmouth.
- Speed Restrictions—At Missoula, twelve (12) miles per hour between Madison Street and over-head bridge near Missoula Yard office. See also mountain grade operation.

### STAFF BLOCK SYSTEM

#### Between BLOSSBURG AND SKYLINE.

No train will move between Skyline and Blossburg until engineman of the leading engine has received a staff from the operator which must be delivered to the operator at the opposite end of the block. Possession of the staff makes a train superior to all other trains between Skyline and Blossburg.

No eastward train will leave Blossburg, and no westward train will leave Skyline unless the train order signal indicates proceed. When a staff has been delivered to the operator at Skyline or Blossburg, it must not be used for another train movement until it has been passed through the staff machine; and it must not be placed in the staff machine until the rear of the train from which the staff is received has passed the train order signal at least 300 feet and the signal has again been placed at "Stop," unless for any reason the rear of the train does not pass the train order signal, in which event the operator will, upon written advice of the conductor that the Staff Block is Clear, place the staff in the machine.

At Blossburg when westward freight trains have helper engines on rear, the operator will not put the staff in machine until caboose has been dropped onto train and helper engines are clear of main track.

- Mountain Grade Operation—Mountain grade East Switch, Birdseye to Blossburg.  
An air test will be made and inspection card filled out as outlined in Form 3797 before leaving Garrison or Blossburg. When the test is made at Garrison, a brake pipe test will be made at Blossburg before the retainers are turned up and following the parting of the hose between the helper and caboose. If, for any reason, the brake pipe or hose couplings have been parted after the test is made at Garrison a terminal test must be made at Blossburg and a second card, Form 3797, filled out.  
Retaining valves must be used on all loaded cars and on one-half of the empty cars, alternating the empties. Blossburg to Fort Harrison. On cars equipped with double pressure retaining valves the handles must be turned up to high pressure position.

(handles diagonal) on heavily loaded cars, and to low pressure position (handles horizontal) on empty cars and light or merchandise loads.

When trains, directed by train order, meet at Birdseye, Austin, Weed or Skyline, the westward train will, unless otherwise directed, take siding. When at Blossburg, the eastward train will, unless otherwise directed, take siding.

When trains meet at Skyline, Weed, Austin or Birdseye, the eastward train, unless otherwise instructed, will not pass the west switch until the westward train is clear of main track.

When eastward freight trains meet first-class trains or passenger extras at Skyline or Austin, operator at meeting point will open upper switch of siding and safety switch before the freight train leaves the station next west of the meeting point and will not close them until the eastward train has stopped; eastward train will not pass safety switch until westward train is known to be clear.

When an eastward first-class train, passenger extra or light engine, meets a westward train at Skyline or Austin, operator will not open safety switch.

Eastward second-class or inferior trains, except light engines or engines with caboose only, will not be permitted to follow first-class trains or passenger extras from Blossburg, Skyline or Austin until the operator at the next office reports the preceding train by, and that the safety switch has been opened.

The normal position of the eastward train order signal at Blossburg, Skyline and Austin will be stop, and the operator will not clear it to allow an eastward movement until assured by the operator at the next station that the safety switch is properly set.

Operators at Skyline or Austin will not open the safety switch for meeting trains until advised by the operator at the preceding station that there is no train ahead of the train for which the safety switch is to be opened.

Operators at Blossburg, Skyline and Austin must keep a record, beginning at 12:01 A. M., of all eastward trains passing their station and notify the operator at the next station in each direction the departing time of such trains. Eastward second-class and inferior trains, other than passenger extras and light engines, will obtain a meet order before leaving Blossburg on all superior westward trains, if unable to make G. N. Crossing for such trains.

Operator will close east switches of both sidings at Blossburg after departure of eastward trains. Operators at Austin and Skyline will close the west switch of siding after departure of westward trains.

Eastward second-class and inferior trains, except passenger extras, unless otherwise instructed, will take siding at Blossburg, test air and obtain staff before again using the main track.

The air brakes must be charged to a maximum of ninety "90" pounds pressure on eastward freight trains at Blossburg and conductors must know by caboose gauge that this pressure is attained before making terminal test. Engineman will maintain a working basis of ninety "90" pounds pressure descending mountain grade.

Eastward freight trains must stop at Austin and Fort Harrison to cool wheels and make inspection.

At Birdseye, Austin, Weed and Skyline, westward freight trains taking siding must not close the main line switch until the train is into clear on the siding.

Passenger trains will use two (2) minutes and thirty (30) seconds thru Mullan Tunnel, and will not exceed any one (1) mile in two (2) minutes and freight trains and light engines any one (1) mile in three (3) minutes, descending.

Passenger trains descending will not exceed twenty-two (22) miles per hour between Blossburg and Austin, and will use not less than six (6) minutes Blossburg to Skyline, six (6) minutes Skyline to Weed, and nine (9) minutes Weed to Austin. All ascending trains thirty (30) miles per hour Birdseye to Blossburg. Speed of passenger trains descending mountain grades will apply to trains handling berry, cherry, lettuce or silk specials.

The following instructions govern operation of the ventilating plant east end of Mullan Tunnel:

"When fan is in operation westward freight trains will not exceed a speed of seven (7) miles per hour through Mullan Tunnel, and when there is a helper engine on rear of train, lead engine will so regulate the speed that the entire train will not exceed this speed through the tunnel.

"If the plant fails, train and enginemen and yard master at Helena will be notified so that helper engines may be turned out of Helena. If the failure of the plant occurs after a train has left Helena, they will be notified by the dispatcher, or if it has departed from Skyline they will be flagged by the engineer at the ventilating plant, in which case train and enginemen will arrange to use necessary precaution for personal protection through the tunnel."

14. Register Stations—  
Helena Yard.  
Garrison.  
Missoula.

15. Register Exceptions—At Garrison, trains may register by Form 608 and will not require clearance if the train order signal is in "proceed" position.

16. Commercial Spurs—

	Miles from Helena	Car Capacity
Mares .....	2.3	6
Fort Harrison .....	4.2	100
Rheems, off Ft. Harrison Spur ..	4.2	2
Rich .....	23.6	6
Calcium .....	26.7	6
Bradman .....	75.3	3
Ludwell .....	87.0	5
Turbine .....	114.3	3
Missoula Tile .....	116.5	4

17. Crossovers:

Garrison.	Willis.
Gold Creek.	Bonita.
Jens.	Clinton.
Drummond.	Bonner.
Bearmouth.	Missoula.
Nimrod.	

## FOURTH SUBDIVISION. (MAIN LINE)

1. Card Train Order (Form AB) will govern the movement of trains between Butte and Silver Bow, and trains must not move in this territory unless conductor and engineman each hold a card properly filled out.

At Silver Bow the normal position of eastward train order signal is "stop" and must not be cleared except for delivery of card without restrictions. If an eastward train is to meet an opposing train at Silver Bow it must be brought to a stop before card is delivered.

2. At Durant—Station platform will not clear man on steps of car or engine.

3. At Garrison—Train order signal does not govern fourth subdivision trains.

4. Speed Restrictions—

At Butte and Deer Lodge—Eight (8) miles per hour within the city limits.

At Butte—Westward trains five (5) miles per hour; eastward trains eight (8) miles per hour over Kaw Avenue crossing west of station.

5. Bridge and Engine Restrictions—Bridges 11.1 and 11.2 Silver Bow Creek; Bridge 21.0 Deer Lodge River, engines Class Z-5 thirty (30) miles per hour.

6. Register Stations—Butte, Garrison, Silver Bow for OSL trains.

7. Commercial Spurs—

	Miles from Butte	Car Capacity
Elde .....	34.2	2

## FIFTH SUBDIVISION. (MAIN LINE)

1. Extra Trains—Between Missoula and Paradise will run via Fifth Subdivision unless otherwise instructed by train order.

2. At Rivulet—South siding will be used as a single siding.

3. **Bridge and Engine Restrictions**—Class Z-5 not permitted. Bridges 122 and 122.1 near Missoula stock yard, engines Class Z-6 forty (40) miles per hour. Bridge 122.2, Grant Creek, Engines Class Z-6 twenty (20) miles per hour. Bridge 168 Fish Creek, Engines A-2, A-3 and Z-6 twenty (20) miles per hour. Bridge 179 Trout Creek, Engines A-2, A-3 and Z-6 ten (10) miles per hour.
4. **Speed Restrictions**—At Missoula, twelve (12) miles per hour between overhead bridge near yard office and Madison Street. Between Huson and St. Regis, fifty (50) miles per hour.
5. **Register Stations**—Missoula and Paradise. St. Regis for No. 255 and No. 256.
6. **Commercial Spurs**—

	Miles from Missoula	Car Capacity
Grass Valley .....	8.7	19
Mellady .....	13.9	4
Thindle .....	19.7	5
Huson .....	22.1	17

### SIXTH SUBDIVISION. (MAIN LINE)

1. **At DeSmet**—Standard switches at east end of east cross-over and at west end of west cross-over are normally lined for the cross-over. Spring switches at west end of east cross-over and east end of west cross-over are normally lined for movement from the 5th sub-division to eastward main track. A train from the 5th sub-division being passed by a train from the 6th sub-division or vice versa, or a train standing on the westward main track to meet a train from the 6th sub-division, will operate the release in order to give the train being met or passed a clear route.
2. **At Arlee**—Normal position of switch at east end of siding is for house track.
3. **At Ravalli**—Normal position of switch at west end of siding is for house track.
4. **At Paradise**—House track in rear of passenger station will be used as siding for first class trains and passenger extras.
5. **Extra Trains** between Missoula and Paradise will run via Fifth Subdivision unless otherwise instructed by train order.
6. **Mountain Grade Operation**—Mountain grade one (1) mile west of DeSmet to two (2) miles east of Arlee. When trains meet at Nagos, the eastward train, unless otherwise instructed, will not pass the west switch until the westward train is clear of main track; at Schley, the westward train, unless otherwise instructed, will not pass the east switch until the eastward train is clear of the main track. When trains directed by train order, meet at Nagos or Schley, the ascending train will unless otherwise directed take siding; when at Evoro, the westward train will unless otherwise directed take siding. On freight trains air brake test will be made and inspection card filled out before leaving Evoro as outlined in Form 3797. The air brakes must be charged to a maximum of ninety (90) pounds pressure at Evoro and conductors must know by caboose gauge that this pressure is attained before making terminal test. Enginemen will maintain a working basis of ninety (90) pounds pressure descending mountain grade. Retainers must be used on all cars Evoro to Reid Spur and from Evoro to two miles east of Arlee. On cars equipped with double pressure retaining valves, the handles must be turned up to high pressure position (handles diagonal) on heavily loaded cars and to low pressure position (handles horizontal) on empty cars and light or merchandise loads. Passenger trains must not exceed any one (1) mile in two (2) minutes, freight trains and light engines any one (1) mile in three (3) minutes descending. Speed of passenger trains descending mountain grades will apply to trains handling berry, cherry, lettuce or silk specials.
7. **Helper District**—Between Missoula and Arlee.
8. **Speed Restrictions**—See mountain grade operation and bridge restrictions.

9. **Bridge and Engine Restrictions**—Engine classes A-2, A-3, Z-3, Z-4, Z-5 and Z-6 not permitted. Bridge 7 Marent Trestle—Double header engine Classes A, A-1 and Z-2 not permitted. A, A-1, Z-2, W-3 and W-5 engines, twenty (20) miles per hour. W-3 and W-5 engines must never be coupled to the tender of a Class A or A-1 engine. Bridge 55 Over Flathead River—Doubleheader engine Classes A, A-1, W-3 and W-5 not permitted. Single A and A-1 or with head end helper, Classes W, W-1, W-2, W-4, Q-5 or Q-6 and doubleheader Classes Q-5 and Q-6, ten (10) miles per hour. Single Q-5, Q-6, W-3, W-5 and Z-2 and single or doubleheader Classes T, W, W-1, W-2, W-4, Z and Z-1, twenty (20) miles per hour.

10. **Register Stations**—Paradise. Arlee for helper engines.

11. **Commercial Spurs**—

	Miles from DeSmet	Car Capacity
Reid .....	3.7	5
Hurley .....	17.8	5

### EIGHTH SUBDIVISION. (PARK BRANCH)

1. **At Electric**—Siding is one (1) mile west of station.
2. **Bridge and Engine Restrictions**—Engines heavier than Classes Q-5 or W not permitted.
3. **Speed Restrictions**—Forty (40) miles per hour, except ten (10) miles per hour on circle at Gardiner.
4. **Register Stations**—Livingston. Gardiner.
5. **Commercial Spurs**—

	Miles from Livingston	Car Capacity
Allens Spur .....	4.5	5
Stock Spur .....	23.8	10

### NINTH SUBDIVISION. (CAMP CREEK BRANCH)

1. **At Manhattan**—Train order signal does not govern ninth sub-division trains.
2. **Manhattan Wye**—Eastward trains will obtain necessary information from dispatcher as to overdue trains before occupying First Subdivision main track.
3. **Speed Restrictions**—Twenty-five (25) miles per hour.
4. **Commercial Spurs**—

	Miles from Manhattan	Car Capacity
Dyk .....	5.8	6
Westlake .....	9.1	2

### TENTH SUBDIVISION. (RED BLUFF AND PONY BRANCHES)

1. **Bridge and Engine Restrictions**—Engines heavier than Class W not permitted. Bridge 14, Norwegian Gulch, five (5) miles per hour.
2. **Speed Restrictions**—Twenty-five (25) miles per hour.
3. **Mountain Grade Operation**—Mountain grade two (2) miles west of Sappington to two (2) miles east of Harrison, and from Pony to two (2) miles east. Passenger trains must not exceed one (1) mile in two (2) minutes and freight trains one (1) mile in four (4) minutes descending.
4. **Register Stations**—Sappington. Harrison. Norris.

5. Register Exceptions—No. 823 does not require a clearance at Sappington to comply with Rule 83-B.
6. Derail Switches—Pony 285 feet from end of track and just opposite depot, and will be kept locked in derail position.
7. Commercial Spurs—

	Miles from Sappington	Car Capacity
Clarks Spur .....	3.7	3
Beals Spur .....	5.6	4
Shaws Spur .....	12.2	4
Dawes Spur .....	16.7	21
Tinsley Spur (On Pony Branch) ..	12.5	2

### ELEVENTH SUBDIVISION. (RUBY VALLEY BRANCH)

1. At Whitehall—Train order signal does not govern eleventh sub-division trains.
2. Bridge and Engine Restrictions—Engines heavier than Class Q-1 not permitted.  
Bridge 9, Jefferson River, Loomont, eight (8) miles per hour; doubleheading with engines heavier than Class F-1 not permitted.  
Wrecking Crane No. 41 eight (8) miles per hour and must have not less than three (3) of the cars assigned to wrecking outfit between the engine and crane.
3. Speed Restrictions—Twenty-five (25) miles per hour.
4. Register Stations—  
Whitehall.  
Alder.
5. Commercial Spurs—

	Miles from Whitehall	Car Capacity
Parrot Spur .....	4.0	18
Winslow Spur .....	7.9	3
Colterville Spur .....	39.5	10

### TWELFTH SUBDIVISION. (PHILIPSBURG BRANCH)

1. At Drummond—Train order signal does not govern twelfth sub-division trains.
2. Bridge and Engine Restrictions—  
Engines Classes Q-1, T and heavier not permitted.
3. Speed Restrictions—Twenty-five (25) miles per hour.
4. Register Stations—Drummond, Philipsburg.
5. Derail Switches—  
Philipsburg.....650 feet East of Station on Main Track.  
On Main Track—Fifty feet west of MP 1—Normal position, de-  
rail position.

### THIRTEENTH SUBDIVISION. (BITTER ROOT BRANCH)

1. At Darby—The main track west of the wye will be used as an industry track. Normal position of both switches on west leg of wye is for west leg.
2. Bridge and Engine Restrictions—  
Bridge O. Missoula River—Engine Class Z-5 not permitted.  
Engine Classes A-2, A-3 and Z-6 ten (10) miles per hour. Engine Classes A, A-1, Z-3 and Z-4 twenty (20) miles per hour.  
Bridge 4 Bitter Root River—Engine Classes Z-4 and heavier not permitted. Singleheader engine Class Z-3 and doubleheader Classes W-3 and W-5, ten (10) miles per hour. Singleheader engine Classes W-3, W-5, Z and Z-2 and doubleheader Classes Q-5 and Q-6 twenty (20) miles per hour.  
Bridge 11.1 Lolo Creek—Engine Classes A-2, Z-4 and heavier not permitted. Engine Classes A, W-3, W-5, Z-2 and Z-3 ten (10) miles per hour. Engine Classes Q-5 and Q-6 twenty (20) miles per hour.  
Bridge 23.2 Bitter Root River—Engine Classes Z-5 and Z-6 not permitted. Engine Classes A-2, A-3, Z-3 and Z-4 ten (10) miles per hour. Engine Classes A, A-1, W-3, W-5, Z and Z-2 twenty (20) miles per hour.  
Bridge 51 Bitter Root River } Engine Classes Q-3, T and  
Bridge 57 Lost Horse Creek } heavier not permitted. Engine  
Bridge 59 Rock Creek } Classes F-1, S-4, S-10 and Q and  
singleheader Q-1 eight (8) miles per hour.

3. Speed Restrictions—Passenger trains thirty-five (35) miles per hour.  
Except as otherwise provided, freight trains thirty (30) miles per hour Missoula to M. P. 54 and twenty-five (25) miles per hour M. P. 54 to Darby.  
Five (5) miles per hour over highway crossing 1817 feet e of Stevensville Station.  
Trains handling steam wrecking derrick, pile driver or locomotive crane, twenty (20) miles per hour.
4. Register Stations—Missoula, Darby.
5. Commercial Spurs—

	Miles from Missoula	Car Capacity
Bing .....	33.9	8
Wood .....	36.6	15
Quast .....	42.2	8
Kyle .....	45.6	8
Charles Heights .....	57.3	10

### FOURTEENTH SUBDIVISION. (FLATHEAD VALLEY BRANCH)

1. At Dixon—Train order signal does not govern fourteenth sub-division trains.
2. Speed Restrictions—Passenger trains thirty (30) miles per hour and freight trains, twenty-five (25) miles per hour.
3. Register Stations—Dixon, Polson.
4. Commercial Spurs—

	Miles from Dixon	Car Capacity
Reclamation .....	28.2	8
Granjo .....	28.4	10

### FIFTEENTH SUBDIVISION. (COEUR D'ALENE BRANCH)

1. At St. Regis—Train order signal does not govern fifteenth sub-division trains.
2. Bridge and Engine Restrictions—  
Engines Classes A, A-1, A-2, A-3, Z-2, Z-3, Z-4, Z-5, and Z-6 permitted, except Z-3 engines 4020, 4021 and 4025. All Class W power not permitted Tammany to Wallace.
3. Speed Restrictions—  
Passenger trains thirty (30) miles per hour and freight trains twenty (20) miles per hour.  
Six (6) miles per hour over public crossings Wallace.  
See also mountain grade operation.
4. Mountain Grade Operation—Mountain grade between Saltese and Mullan. Air brake test will be made and inspection card filled out before leaving Lookout as outlined in Form 3797.  
Safety switch at foot of four per cent grade at Sohon and Dorsey will be kept set and locked for main track, except when doubling trains to Lookout, when switches will be opened between head and rear portion of train.  
The air brakes must be charged to a maximum of ninety (90) pounds pressure on freight trains at Lookout, and conductors must know by caboose gauge that this pressure is attained before making terminal test. Enginemen will maintain a working basis of ninety (90) pounds, Lookout to Saltese and Lookout to Mullan.  
Train and enginemen using the Hercules high line at Wallace must leave a flagman at the foot of the grade to protect return movement. Train and enginemen must at all times expect to find a flagman at this point.  
Passenger trains will not exceed any one (1) mile in two and one-half (2½) minutes and freight trains any one (1) mile in four (4) minutes and light engines any one (1) mile in three (3) minutes descending.  
All trains ascending twenty-four (24) miles per hour, Tammany to Lookout and Mullan to Lookout.  
When trains directed by train order meet at Larson, Dorsey or Lookout, the eastward train will take siding. When at Taft or Tammany the westward train will take siding.  
Retaining valves must be used on all cars Lookout to Saltese and Lookout to Mullan. On cars equipped with double pressure retaining valves, the handles must be turned up to high pressure.

position (handles diagonal) on heavily loaded cars, and to low pressure position (handles horizontal) on empty cars and light or merchandise loads.

5. Helper District—Between Saltese and Wallace.

76. Register Stations—  
St. Regis, Haugan, Wallace, Lookout.  
Saltese for helper engines.

7. Commercial Spurs—

	Miles from St. Regis	Car Capacity
Wileys .....	20.2	8
McKinnis .....	49.0	11
Hunter .....	49.3	15
Compressor .....	52.8	2
Golconda .....	54.8	6
Gentry .....	55.4	2

8. Lap Sidings—Saltese. Lookout.

### SIXTEENTH SUBDIVISION. (BURKE BRANCH)

1. Trains will not require train orders or clearance and will be governed by transportation rule S-93.

2. At Dorn—Engines not permitted inside loading shed.

3. Mountain Grade Operations—Mountain grade between Burke and Wallace. At the initial point of descent, after completing the required air test, conductors in charge of freight trains will fill out inspection card Form 3797.

Trains originating east of and picking up at Dorn will make second air test and complete record on Form 3797.

The air brakes must be charged to a maximum of ninety (90) pounds pressure on freight trains at Burke and conductors must know by caboose gauge that this pressure is attained before making terminal test. Enginemen will maintain a working basis of ninety (90) pounds pressure Burke to Wallace.

Retaining valves must be used on all cars Burke to Wallace. On cars equipped with double pressure retaining valves the handles must be turned up to high pressure position (handles diagonal) on heavily loaded cars, and to low pressure retaining position (handles horizontal) on empty cars and light or merchandise loads.

Freight trains will not exceed any one (1) mile in four (4) minutes and light engines any one (1) mile in three (3) minutes descending.

4. Register Station—Wallace.

5. Commercial Spurs—

	Miles from Wallace	Car Capacity
Webb .....	1.7	4
Markwell .....	2.2	3
Frisco .....	4.2	3
Mace .....	5.9	8

### SEVENTEENTH SUBDIVISION. (SUNSET BRANCH)

1. Trains will not require train orders or clearance, and will be governed by transportation rule S-93.

2. Mountain Grade Operations—Mountain grade between Bunn and Wallace. Air brake test will be made and inspection card filled out before leaving Bunn as outlined in inspection card Form 3797.

The air brakes must be charged to a maximum of ninety (90) pounds pressure on freight trains at Bunn and conductors must know by caboose gauge that this pressure is attained before making terminal test. Enginemen will maintain a working basis of ninety (90) pounds Bunn to Wallace.

Retaining valves must be used on all cars Bunn to Wallace. On cars equipped with double pressure valves the handles must be turned up to high pressure position (handles diagonal) on heavily loaded cars and to low pressure position (handles horizontal) on empty cars and light or merchandise loads. Freight trains will not exceed any one (1) mile in four (4) minutes and light engines any one (1) mile in three (3) minutes descending.

3. Register Station—Wallace.

4. Commercial Spurs—

	Miles from Wallace	Car Capacity
Mahoney .....	2.0	2

### ALL SUBDIVISIONS.

1. Conductors of work trains will issue instructions to their flagmen in writing, except when flagmen go back immediately to stop an approaching train.

2. Speed Restrictions—

Passenger trains one (1) mile per minute.

Freight trains fifty (50) miles per hour except permitted speed of engine will govern where restricted to less than fifty (50) miles per hour.

All trains thirty (30) miles per hour over interlocked crossings. Fifteen (15) miles per hour thru cross-overs, turnouts, gauntlets. Passing telegraph offices where orders are received, twenty-five (25) miles per hour.

Engines—Classes A, A-1, A-2, A-3, Q-5, Q-6 and Z-6 sixty (60) miles per hour. W, W-1, W-2, W-3, W-4 and W-5 fifty (50) miles per hour.

Switch engines moving between stations, under steam, fifteen (15) miles per hour.

Trains handling steam wrecking derrick, pile driver or locomotive crane will not exceed thirty (30) miles per hour.

To avoid damage to rail and bridges by moving locomotives having main or side rods down, over the road at too high a speed, the following speeds will be maximum permitted:

On Main Line—

With main and side rods removed:

Class A, A-1 and all Q classes ..... 30 miles per hour

All other classes ..... 25 miles per hour

With main rods removed and side rods in place:

Class A, A-1 and all Q classes ..... 35 miles per hour

All other classes ..... 30 miles per hour

On Branch Lines—

With either or both main and side rods removed:

Class A, A-1 and all Q engines ..... 25 miles per hour

All other classes ..... 20 miles per hour

Over Bridges—Main or Branch Line—

In moving over bridges with speed restrictions against the class of engine being so moved, a further restriction of one-half restricted speed for that class of engine shall be observed.

3. Except as otherwise provided enginemen will be required only to consult register at initial or starting point.

4. Before moving a work or wrecking train, the whistle signal (14-b) or (14-h) must be sounded for the protection of men working about such trains.

5. When conditions permit, enginemen on freight trains will receive proceed signal from rear of train before passing any station. In case of failure of communicating signal system on passenger trains, the same provisions will apply.

6. When a siding is to be used temporarily as a main track, the switches will be set and locked for the siding and be protected by flagman until train order covering the movement is issued to all trains and the section foreman of that section; the flagman to remain until released by the train dispatcher.

7. In automatic block territory gas-electric motor cars must not be stopped on sand, and when handled in freight trains, must be behind caboose.

8. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or locomotives.

On double track, trains handling logs will not be permitted to meet passenger trains between stations. Conductors will notify Dispatcher when there are logs in their trains and secure train order that passenger trains will be held at next station until they have arrived. On single track, trains handling logs when meeting passenger trains will not proceed unless the passenger train is standing still or has moved by the log cars. Conductors of all trains picking up logs must know personally that cars are not overloaded or improperly loaded and are safe to move without loss of lading.

9. Before occupied outfit cars are switched or handled, air brakes must be cut in.



10. **IN TERRITORY EQUIPPED WITH AUTOMATIC BLOCK SIGNALS:** When a train dispatcher desires to advance a train from a station where by the rule it should enter the siding before passing a train order office, he may instruct the operator to use white signal as prescribed by Transportation Rule 12-C. The engineman may then continue to move his train on the main track to the signal at restricted speed and there be governed by train orders that are addressed to his train. When a train is stopped by a stop and proceed signal it may proceed at once at restricted speed expecting to find a train in the block, broken rail, obstruction or switch not properly set, and must understand that such signal indication may be due to an opposing train proceeding into the same block at the opposite end under an approach signal indication Rule 501-B and before proceeding into the block every precaution consistent with running orders and the nature of the track ahead should be taken to insure safe movement through the block.
11. On all branch line sidings trains may expect to find cars at any time.
12. **SPRING SWITCHES:**—Maximum speed for all facing point and trailing point movements through switch fifteen (15) miles per hour. Trailing movements on the track for which the switch is normally lined may be made at normal speed. Trains trailing through or stopping on a spring switch must not back up or take slack until points have been thrown by hand. Flying switches over or through spring switches are prohibited. When operated by hand, lever must be moved slowly, keeping a steady pressure on the handle until the switch is thrown and the handle is in the notch on the switch stand provided for it. When signal governing block in which spring switch is located is at stop, or where automatic block signals do not govern account trains running against current of traffic, facing point movements must not be made over switch until points have been examined. Sand must not be used over points of spring switches.
13. Derail switches will be set in derail position when not in use.
14. Trains pulling into side tracks or leaving the main line at junction points must pull entirely into clear of insulated joints before stopping to pick up the man attending switch. At terminals where engines are not changed nor train line separated on passenger trains and terminal brake test is not made by car men after outgoing crew takes charge, a running brake test must be made as soon as train is moving at moderate speed. When running test is made, trainmen should be on the car steps to see that brakes apply properly and then give proceed signal to engineman.
16. Always observe position of switch-points after throwing switch, and see that the switch lever is pushed firmly into the notch before leaving switch.
17. Helper engines waiting to help trains will keep clear of main track until train to be helped has arrived and stopped.
18. Engines coupling to passenger trains and in making coupling between passenger cars, engine or cars must be brought to a full stop not more than thirty or less than ten feet from the train before making coupling.
19. **BULLETIN STATIONS:**—Livingston, Bozeman, Logan, Whitehall, Butte, Helena, Silver Bow—for Union Pacific trains. Garrison, Missoula, St. Regis, Wallace, Paradise.
20. **STANDARD TIME CLOCKS:**—Livingston, Bozeman, Logan, Whitehall, Butte, Helena, Garrison, Missoula, Wallace and Paradise.
21. **WATCH INSPECTORS:**—H. N. Hull, Livingston. R. R. Horner, Townsend. S. V. Justus, Whitehall. A. M. Flink, Wallace. C. P. Steffens, Bozeman. R. W. Crawford, Helena. S. and S. Jewelry Co., Butte. Kohn Jewelry Co., Missoula. H. E. Rakeman, Polson.

**NOTE**

Rule S-5 of our Transportation Rules is amended to the extent that numbers of trains meeting, passing or being passed, will not be shown in small type adjacent to the full-faced type.

**TONNAGE RATINGS—WESTWARD.**

	ENGINES									
	Ruling Grade	Class S2	Class W	Class W-1 and W-2	Class W3	Class Y1	Class Z2	Class Z3	Class Z4	Class Z6
Livingston to West End.....	1.8	400	950	1025	1240	775	1460	1900	2320	2200
West End to Townsend.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Townsend to Winston.....	1.0	950	1400	1510	2050	1375	.....	.....	.....	3700
Winston to Helena..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logan to Whitehall..	0.5	1750	2500	2700	3240	2400	.....	.....	.....	6000
Whitehall to Homestake.....	2.2	400	700	755	860	575	1040	1250	1550	1300
Homestake to Butte.	.....	.....	Descending Mountain Grade							
Sappington to Norris	2.2	400	.....	.....	.....	.....	.....	.....	.....	.....
Whitehall to Alder..	1.0	600	.....	.....	.....	.....	.....	.....	.....	.....

**TONNAGE RATINGS—EASTWARD.**

	ENGINES									
	Ruling Grade	Class S2	Class W	Class W-1 and W-2	Class W3	Class Y1	Class Z2	Class Z3	Class Z4	Class Z6
Helena to Placer....	1.0	950	1400	1510	2050	1375	.....	.....	.....	.....
Placer to Logan....	1.0	1800	3000	3240	4000	2400	.....	.....	.....	.....
Logan to Bozeman.. (Old Line)	1.0	900	1600	1730	2260	1425	.....	.....	.....	4000
Logan to Bozeman.. (New Line)	0.4	1750	2750	2970	4000	2400	.....	.....	.....	7000
Bozeman to Muir..	1.9	400	900	970	1250	750	1400	1850	2320	1950
Muir to Livingston..	.....	.....	Descending Mountain Grade							
Butte to Homestake.	2.2	400	600	650	775	575	1040	1100	1300	1300
Homestake to Whitehall.....	.....	.....	Descending Mountain Grade							
Whitehall to Logan..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norris to Sappington	1.3	600	.....	.....	.....	.....	.....	.....	.....	.....



# TONNAGE RATINGS.

EASTWARD	ENGINES							
	Ruling Grade	W Sup.	W-3	W-5	Z	Z-1	Z-3	Z-6
Paradise to Missoula (Via St. Regis).....	0.4	2800	4000	4500	.....	.....	.....	.....
Paradise - Dixon.....	0.4	2800	.....	.....	.....	.....	.....	.....
Dixon - Arlee.....	1.0	1800	.....	.....	.....	.....	.....	.....
Arlee - Evaro.....	2.2	700	800	.....	.....	.....	.....	.....
Evaro - Missoula.....	Down	Car	Limit	.....	.....	.....	.....	.....
Missoula - Garrison.....	0.4	2400	3700	.....	.....	.....	4500	7000
Garrison - Elliston.....	1.0	1600	2000	.....	2000	.....	2500	3700
Elliston - Blossburg.....	1.4	1100	1500	.....	1500	.....	2100	2700
Blossburg - Helena.....	Down	Car	Limit	.....	.....	.....	.....	.....
Garrison - Stuart.....	0.7	1800	2500	.....	.....	.....	.....	4200
Stuart - Butte.....	1.0	1500	2100	.....	.....	.....	.....	3700
Wallace - Dorsey.....	2.2	.....	.....	.....	875	750	1200	.....
Dorsey - Lookout.....	4.0	.....	.....	.....	450	375	600	.....
Lookout - Sohon.....	Down	Limit	2600 tons	4% grade	.....	.....	.....	.....
Sohon - St. Regis.....	Down	Car	Limit	.....	.....	.....	.....	.....
WESTWARD								
Helena - Blossburg.....	2.2	700	800	.....	800	.....	1150	1400
Blossburg or Butte to Mis- soula.....	Down	Car	Limit	.....	.....	.....	.....	.....
Missoula to Paradise (Via St. Regis).....	0.4	Car	Limit	.....	.....	.....	.....	.....
DeSmet - Evaro.....	2.2	700	800	.....	.....	.....	.....	.....
Evaro - Paradise.....	Down	Car	Limit	.....	.....	.....	.....	.....
St. Regis - Saltese.....	1.0	.....	.....	.....	2000	1650	2500	.....
Saltese - Sohon.....	2.2	.....	.....	.....	875	750	1200	.....
Sohon - Lookout.....	4.0	.....	.....	.....	525	425	600	.....
Lookout - Dorsey.....	Down	Limit	2000 tons	4% grade	.....	.....	.....	.....
Dorsey - Wallace.....	Down	Car	Limit	.....	.....	.....	.....	.....

## MAXIMUM CLEARANCES.

NOTE—Length of Load 40 feet. Max. width of Load independent of Clearances 11'6". Heights and Widths in Table allow 9 inches Clearance.

	Governing Structure	LIMIT OF LOAD—MEASUREMENT										
		Height Above Top of Rail										
		10" Wide	20" Wide	30" Wide	40" Wide	50" Wide	60" Wide	70" Wide	80" Wide	Max. Height	Max. Width	
1st Subdivision.	M. L., Livingston to Logan.	17'10"	17'9"	17'7"	17'6"	17'3"	17'0"	16'9"	16'7"	16'4"	17'10"	11'6"
1st Subdivision.	M. L., Logan to Helena.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
2nd Subdivision.	M. L., Logan to Butte.	17'6"	17'6"	17'6"	17'6"	17'5"	17'3"	17'0"	16'10"	16'9"	17'6"	11'6"
1st Subdivision.	Bozeman to Logan.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
	Low Grade Line											
3rd Subdivision.	M. L., Helena to Garrison.	17'9"	17'9"	17'7"	17'5"	17'3"	16'10"	16'7"	16'5"	16'3"	17'9"	11'6"
3rd Subdivision.	M. L., Garrison to Missoula.	19'10"	19'7"	19'4"	19'1"	18'8"	18'3"	17'9"	17'5"	17'2"	19'10"	11'6"
4th Subdivision.	M. L., Butte to Garrison.	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	11'6"
5th Subdivision.	M. L., Missoula to Paradise.	17'7"	17'7"	17'7"	17'5"	17'3"	17'0"	16'9"	16'7"	16'6"	17'7"	11'6"
6th Subdivision.	M. L., DeSmet to Paradise.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
7th Subdivision.	Livingston to Gardiner.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
8th Subdivision.	Manhattan to Anceney.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
9th Subdivision.	Sappington to Norris and Pony	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
10th Subdivision.	Whitehall to Alder.	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	11'6"
11th Subdivision.	Drummond to Phillipsburg.	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	11'6"
12th Subdivision.	Missoula to Darby.	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	11'6"
13th Subdivision.	Dixon to Polson.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"
14th Subdivision.	St. Regis to Wallace.	18'5"	18'5"	18'5"	18'5"	18'5"	18'5"	18'5"	18'5"	18'5"	18'5"	11'6"
5th Subdivision	Wallace to Burke.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"

Bozeman and Hoppers Tunnels  
Honestake Tunnel and Tunnel at M. P. 57½  
Bridge 167.8

Iron Ridge Tunnel  
Garrison Tunnel  
B. A. & P. Overhead  
Tunnel No. 7 at M. P. 177½ on 6°30' Curve

Bridge No. 9 Jefferson River  
Bridge O-1  
Bridge 57

Bridge 17 and Tunnel No. 11—1 mile west of Bonax

# MAXIMUM CLEARANCES

NOTE—Length of Load 40 feet. Max. width of Load independent of Clearances 11'6". Heights and Widths in Table allow 9 inches Clearance.

LIMIT OF LOAD--MEASUREMENT													Governing Structure
Height Above Top of Rail													
8'6" Wide	9'0" Wide	9'6" Wide	10'0" Wide	10'2" Wide	10'6" Wide	11'0" Wide	11'6" Wide	Max. Height	Max. Width				
1st Subdivision..	M. L., Livingston to Logan.	15'11"	15'7"	15'3"	14'9"	14'5"	14'0"	13'2"	12'5"	17'10"	11'6"	Bozeman and Hoppers Tunnels	
1st Subdivision..	M. L., Logan to Helena.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		
2nd Subdivision..	M. L., Logan to Butte.	16'8"	16'7"	16'6"	15'11"	15'9"	15'5"	15'0"	14'6"	17'6"	11'6"	Homestake Tunnel and Tunnel at M. P. 57½	
1st Subdivision..	Bozeman to Logan, Low Grade Line	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"	Bridge 167.8	
3rd Subdivision..	M. L., Helena to Garrison.	15'11"	15'8"	15'4"	15'0"	14'11"	14'7"	14'2"	13'6"	17'9"	11'6"	Iron Ridge Tunnel	
3rd Subdivision..	M. L., Garrison to Missoula.	16'11"	16'7"	16'2"	15'10"	15'8"	15'4"	14'11"	14'4"	19'10"	11'6"	Garrison Tunnel	
4th Subdivision..	M. L., Butte to Garrison.	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	19'7"	11'6"	B. A. & P. Overhead	
5th Subdivision..	M. L., Missoula to Paradise.	16'2"	15'10"	15'7"	15'3"	15'2"	14'10"	14'7"	14'3"	17'7"	11'6"	Tunnel No. 7 at M. P. 177½ on 6°30' Curve	
6th Subdivision..	M. L., DeSmet to Paradise.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		
7th Subdivision..	Mission to Wilsall.	20'10"	20'7"	20'4"	20'1"	20'0"	19'10"	19'6"	19'3"	21'6"	11'6"	Bridge No. O. 10 & 15	
8th Subdivision..	Livingston to Gardiner.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		
9th Subdivision..	Manhattan to Auncney.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		
10th Subdivision..	Sappington to Norris and Pony.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		
11th Subdivision..	Whitehall to Alder.	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	11'6"	Bridge No. 9 Jefferson River	
12th Subdivision..	Drummond to Phillipsburg.	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	11'6"	Bridge O-1	
13th Subdivision..	Missoula to Darby.	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	19'4"	11'6"	Bridge 57	
14th Subdivision..	Dixon to Polson.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		
15th Subdivision..	St. Regis to Wallace.	18'5"	18'5"	18'3"	17'11"	17'9"	17'6"	17'1"	16'7"	18'5"	11'6"	Bridge 17 and Tunnel No. 11—1 mile west of Borax	
16th Subdivision..	Wallace to Burke.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"		

## RAILROAD CROSSINGS AND INTERLOCKINGS.

### First Subdivision—

Belgrade Tower—Automatic Interlocking.

### Second Subdivision—

Sappington—C. M. St. P. & P. R. R.—Automatic Interlocking.

### Third Subdivision—

Great Northern Crossing—G. N. Ry.—Interlocked.

### Fourth Subdivision—

Silver Bow—U. P. R. R.—Interlocked.

Dempsey—C. M. St. P. & P. R. R.—Automatic Interlocking.

### Fifth Subdivision—

Huson—C. M. St. P. & P. R. R.—Automatic Interlocking.

### Ninth Subdivision—

Between Manhattan and White—Gallatin Valley Railway—Crossing.

### Eleventh Subdivision—

Between Whitehall and Renova—C. M. St. P. & P. R. R.—Interlocked.

### Twelfth Subdivision—

Drummond—C. M. St. P. & P. R. R.—Automatic Interlocking.

### Fifteenth Subdivision—

0.4 miles east of Wallace Station—U. P. R. R.—Crossing.

## SPEED TABLE.

Time per Mile			Miles per Hour			Time per Mile			Miles per Hour			Time per Mile			Miles per Hour		
Min.	Sec.					Min.	Sec.					Min.	Sec.				
1	..	60	1	20	45	2	50	21.2	1	25	42.3	3	..	20	1	15	48
1	1	59	1	30	40	3	..	20	1	30	40	3	9	19	1	12	50
1	2	58	1	40	36	3	19	18	1	40	36	3	20	18	1	10	51.4
1	3	57.1	1	45	34.3	3	21	17	1	45	34.3	3	21	17	1	9	52.1
1	4	56.2	1	50	32.7	3	45	16	1	50	32.7	3	45	16	1	8	52.9
1	5	55.3	2	..	30	4	..	15	2	..	30	4	..	15	2	7	53.7
1	6	54.5	2	10	27.6	5	..	12	2	10	27.6	5	..	12	2	6	54.5
1	7	53.7	2	15	26.6	6	..	10	2	15	26.6	6	..	10	2	5	54.5
1	8	52.9	2	20	25.7	7	30	8	2	20	25.7	7	30	8	2	4	54.5
1	9	52.1	2	30	24	10	..	6	2	30	24	10	..	6	2	3	52.1
1	10	51.4	2	40	22.5				2	40	22.5				2	2	48
1	12	50	2	45	21.8				2	45	21.8						

J. R. SMITH,  
Trainmaster.

B. H. HAMMER,  
Trainmaster.

DAN HEALY,  
Ass't Supt.

J. A. BRYAN,  
Roadmaster,  
Trainmaster.

H. LIVESEY,  
Chief Dispatcher.