

NORTHERN PACIFIC RAILWAY COMPANY

Rocky Mountain Division

Special Instructions No. 1

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

Sunday, July 2, 1933

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

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

**J. H. JOHNSON,
Superintendent.**

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

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

SPECIAL INSTRUCTIONS

FIRST SUBDIVISION.

(MAIN LINE)

1. **At Muir**—Authority must be secured from the train dispatcher before engines leave spur to make reverse movement on eastward track.
2. **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.
3. **At Trident**—No. 5 track cannot be used across coal hopper at cement plant.
4. **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. From 6:00 P. M. to 6:00 A. M., No. 1 track, East Helena yard, will be used as eastward siding, capacity 70 cars.
5. **Extra Freight Trains**—Bozeman to Logan, will run via Manhattan, Logan to Bozeman, will run via Powers, unless otherwise instructed by train order.
6. **Double Track**—The normal position of switches at Livingston and Bozeman is for eastward track.
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 Manhattan, Class W-3 and heavier engines must not use wye. At East Helena, power heavier than class W will not be used on McClelland Spur.
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 Bozeman, eastward trains fifteen (15) miles per hour over crossing at coal dock. At Belgrade, all trains thirty (30) miles per hour over Broadway Street, just west of 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.
11. **Mountain Grade Operation**—Mountain grade, Livingston to M. P. 20, five and one-half (5½) miles east of Bozeman. Speed of passenger trains must not exceed one (1) mile in two (2) minutes, light engines one (1) mile in three (3) minutes, and freight trains one (1) mile in three (3) minutes, descending, except eastward passenger trains will use seven (7) minutes Muir to Hoppers and thirteen (13) minutes Hoppers to Livingston. Passenger trains must use not less than two and one-half (2½) minutes and freight trains not less than four (4) minutes through Bozeman tunnel. 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. At west mile board at West End, the engineman of eastward freight trains must increase brake pipe and auxiliary reservoir pressure to 90 pounds, this pressure to be carried until engine is cut off at Livingston. Before entering tunnel, engineman must receive proceed signal from conductor, which will not be given until brake pipe pressure at caboose gauge has increased to 80 pounds. On eastward trains, trainmen will commence turning up retaining valves at west mile board at West End. All retaining

valves that cannot be reached while train is moving must be turned up before train leaves Muir.

The retaining valves on rear half of train may be turned down at the west crossover switch at Livingston; the remainder after passing the yard office.

Westward freight trains will carry seventy (70) pounds train line pressure between Muir and Bozeman.

Trainmen will commence turning up retaining valves when train reaches east mile board at Muir. All retaining valves that cannot be reached while train is moving, must be turned up before train leaves West End, and must be turned down after passing M. P. 20 or before leaving Bozeman.

Westward freight trains descending with all empty cars will turn up one-third the retaining valves beginning at the engine, and on trains of loads and empties, retaining valves will be turned up on all loaded cars and one-third of the empty cars, alternating the empty cars. Retaining valves must be used on all loaded cars, the handles turned to high pressure position (diagonal) on heavy loads, and low pressure position (horizontal) on light loads and empty cars.

12. Register Stations—

Livingston.

Bozeman.

Logan.

Helena.

East End Helena Yard for westward light engines.

13. Register Exceptions—At Bozeman trains via Powers will register by ticket Form 608 and will be furnished check of register Form 602 by operator.

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	5
Stanley	68.0	6
Penwell	111.5	8

15. Cross-overs: Livingston.

Hoppers.

Muir.

Chestnut.

Bozeman.

16. Lap Sidings: Townsend.

Winston.

East Helena.

SECOND SUBDIVISION.

(MAIN LINE)

1. **At Three Forks Pit**—Engines class "W" and heavier not permitted on pit tracks beyond 400 feet from the switch.
2. **At Danmor**—Trains receiving or discharging passengers will stop at road crossing east of east switch.
3. **At Lime Spur**—Rock conveyor will not clear a box car; be sure engine will clear before passing.
4. **At Whitehall**—Station platform will not clear man on steps of cars nor engines.
5. **At Homestake**—Eastward passenger trains stopping to detach helper engine, double heading, must approach switch used by helper engine in taking siding at restricted speed.
6. **Double Track**—The normal position of switches at M. U. Transfer and Butte is for westward track.
7. **Helper District**—Between Whitehall and Butte.
8. **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.
9. **Bridge and Engine Restrictions**—Engines heavier than Class Y not permitted on quarry spur at Welch. This track must not be used above 2000 feet from siding. Switching on this track must be done with engine headed west. At Lewis' spur engines Class W-3 will not go beyond frog.

10. **Speed Restrictions**—At M. U. Transfer thirty (30) miles per hour over highway crossing in middle of yard.

11. **Mountain Grade Operation**—Mountain grade two (2) miles east of Pipestone or 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 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.

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.

Normal position of train order signal at Homestake is STOP, and must not be changed except to CAUTION, to permit a train to pass.

A train will not be permitted to leave Homestake until the last preceding train has arrived within the station switches of the next open telegraph office or reports clear of the main track at an intermediate siding, unless authorized by train order to do so. If all communication fails, the operator may issue clearance card endorsed—"Means of communication have failed. Proceed at restricted speed." The operators at Whitehall and Butte will report the block clear when the markers of train can be plainly seen within the station switches or the conductor has registered its arrival. At Homestake, during the hours no telegraph service is maintained, the normal position of train order signal will be clear and block will be maintained between Whitehall and Butte in both directions. Normal position of train order signal affecting westward trains at Whitehall will be stop. Ascending trains may follow other trains Butte to Homestake, or Whitehall to Homestake when given a train order reading: "Do not pass Homestake until you have received train order that preceding trains have cleared the block."

Operators at Butte and Homestake will promptly notify operator at station in advance of the departure of eastward trains. Operators at Whitehall and Homestake will promptly notify operator at station in advance of the departure of westward trains.

Operators at Homestake will keep a record of the time trains pass that station and the time eastward trains arrive at Whitehall and westward trains arrive at Butte. An eastward train going to Welch, Pipestone or Spire Rock, or a westward train going to Highview or Skones to be passed by another train will report on the telephone when into clear and will not proceed until the train which has passed clears at the next open telegraph office.

12. **Register Stations**—

Logan.

Sappington. For 237 and 238 and extras to and from Tenth Subdivision.

Whitehall for second class and inferior trains.

Butte.

M. U. Transfer for helper engines; to be telephoned by engineman to operator at Butte.

13. **Clearance Exceptions**—

Eastward trains must have tunnel clearance before leaving Highview. If received at Butte it will be issued by dispatcher. If received at Highview it will be issued by operator at Homestake.

14. **Commercial Spurs**—

	Miles from	Car
	Logan	Capacity
Ingleside	17.7	5
Blackstone	42.2	7

THIRD SUBDIVISION.

(MAIN LINE)

1. **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.

2. **At Austin**, south siding will be used as westward siding and north siding as eastward siding.

3. **At Avon**, south siding will be used as westward siding and north siding as eastward siding.

4. **At Blossburg**, south siding will be used as eastward siding and north siding as westward siding.

5. **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.

6. **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.

7. **At Austin, Skyline and Garrison**—The east switch of the westward siding at Austin, the east switch of the siding at Skyline and at the east and west end of the crossover to the first and second subdivisions at Garrison, are electrically operated and handled by the operator. These machines are equipped with two levers, one marked, "Power," and the other, "Hand Throw." The power lever is locked in the normal position. To operate by hand unlock power lever and throw in reverse position. Switch can then be thrown with hand throw lever. As automatic signals will not clear when using hand throw lever, movements will be governed by hand signals and made at restricted speed. Hand operated levers must not be restored to normal position until train has passed the switch. Lever should then be restored to normal position.

8. **Helper District** between Helena and Blossburg.

9. **Pusher District** between Garrison and Blossburg.

10. **Train Inspection**—Freight trains will stop for inspection as the Conductor directs, but westward freight trains must be inspected at Drummond or Bearmouth.

11. **Speed Restrictions**—Twelve (12) miles per hour between Madison Street and over-head bridge near Missoula Yard office.

12. **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.

13. **Mountain Grade Operation**—Mountain grade East Switch Birdseye to Blossburg.

Air brake test will be made and inspection card filled out before leaving Blossburg as outlined in Form 3797.

Retaining valves must be used on all cars 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 Skyline, Weed, Austin or Birdseye, the westward train will take siding. When at Blossburg, the eastward train will 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 Birdseye, 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. 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. Commercial Spurs—

	Miles from Helena	Car Capacity
Mares	2.8	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

16. Crossovers:

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

17. Lap Sidings:

Elliston.

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. Speed Restrictions—

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

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

4. Register Stations—Butte. Garrison. Silver Bow for OSL trains.

5. Commercial Spurs—

	Miles from Butte	Car Capacity
Elide	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. Speed Restrictions—At Missoula approach cross-over and switch leading to Thirteenth Subdivision at restricted speed.

Twelve (12) miles per hour between overhead bridge near yard office and Madison Street, at Missoula.

Between Huson and St. Regis passenger trains forty-five (45) miles per hour.

Approach west portal Tunnel 10 just west of Quinns at restricted speed.

3. Register Stations—Missoula and Paradise.

St. Regis for Nos. 263 and 264.

4. Commercial Spurs—

	Miles from Missoula	Car Capacity
Mellady	13.9	4
Thindle	19.7	5
Sand	35.4	10

5. Lap Sidings—

Lothrop.
Rivulet.
Donlan.

SIXTH SUBDIVISION. (MAIN LINE)

1. **At Paradise**—House track in rear of passenger station will be used as siding for first class trains and passenger extras.
2. **Extra Trains** between Missoula and Paradise will run via Fifth Subdivision unless otherwise instructed by train order.
3. **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 Evaro, the westward train will take siding; when at Schley, the eastward train will take siding.
Air brake test will be made and inspection card filled out before leaving Evaro as outlined in Form 3797.
The air brakes must be charged to a maximum of ninety (90) pounds pressure on freight trains at Evaro 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 Evaro to Reid Spur and from Evaro 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.
4. **Helper District**—Between Missoula and Arlee.
5. **Bridge and Engine Restrictions**—
Bridge 5, O'Keefe Gulch Viaduct, Engines, Classes A, W-3, W-5, Z, Z-1, Z-2, Z-3 and Z-4 may be hauled dead in trains, without coal or water, with four cars between engines, at five (5) miles per hour.
Bridge 7, Marent Viaduct:
Double header engines, Classes A, Z-2, Z-3 and Z-4 not permitted.
Classes A, Z-2, Z-3 and Z-4, and all lighter engines thirty (30) miles per hour.
Bridge 55, over Flathead River:
Engines Classes A, W-3, W-5, Z, Z-1, Z-2, Z-3 and Z-4 may be hauled dead in trains, without coal or water, with four cars between engines, at five (5) miles per hour.
6. **Register Stations**—
Paradise.
Dixon for Nos. 273, 274 and helper engines.
Arlee for helper engines.
7. **Commercial Spurs**—

	Miles from DeSmet	Car Capacity
Reid	3.7	5
Hurley	17.8	5

SEVENTH SUBDIVISION. (SHIELDS RIVER BRANCH)

1. **Speed Restrictions**—Twenty-five (25) miles per hour.
2. **Bridge and Engine Restrictions**—
Engines heavier than Classes Q-5 or W not permitted.
3. **Register Stations**—Wilsall.

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. **Manhattan Wye**—Eastward trains will obtain necessary information from dispatcher as to overdue trains before occupying First Subdivision main track.
2. **Speed Restrictions**—Twenty (20) miles per hour.
3. **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 T 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. 225 does not require a clearance at Sappington to comply with Rule 83-B.
6. **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 subdivision 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	16
Winslow Spur	7.9	3
Colterville Spur	39.5	10

TWELFTH SUBDIVISION.

(PHILIPSBURG BRANCH)

1. **Bridge and Engine Restrictions**—Engines Classes Q-1, T and heavier not permitted.
2. **Speed Restrictions**—Twenty-five (25) miles per hour.
3. **Register Stations**—Drummond, Philipsburg.
4. **Derail Switches**—Philipsburg. 650 feet East of Station on Main Track.
5. **Commercial Spurs**—

	Miles from Drummond	Car Capacity
Gold Coin	13.5	5

THIRTEENTH SUBDIVISION.

(BITTER ROOT BRANCH)

1. **Bridge and Engine Restrictions**—Bridges 4, Bitter Root River; 51, Bitter Root River; 57, Lost Horse Creek and 59, Rock Creek: Engines Classes S-2, S-3, S-4 and Q, eight (8) miles per hour. Double header engines, Class F-1, eight (8) miles per hour. Engines, Classes T, Q-1 and heavier not permitted.
2. **Speed Restrictions**—Passenger trains thirty-five (35) and freight trains thirty (30) miles per hour. Five (5) miles per hour over highway crossing 1817 feet east of Stevensville Station. Trains handling steam wrecking derrick, pile driver or locomotive crane, twenty (20) miles per hour.
3. **Register Stations**—Missoula, Darby.
4. **Commercial Spurs**—

	Miles from Missoula	Car Capacity
Harper—Log Spur	24.9	5
Bing	33.9	8
Wood	36.6	8
Quast	42.2	8
Kyle	45.6	8
Charles Heights	57.3	10

FOURTEENTH SUBDIVISION.

(FLATHEAD VALLEY BRANCH)

1. **Speed Restrictions**—Passenger trains thirty (30) miles per hour and freight trains, twenty-five (25) miles per hour.
2. **Register Stations**—Dixon. Polson.
3. **Commercial Spurs**—

	Miles from Dixon	Car Capacity
Reclamation	28.2	8
Granjo	28.4	10

FIFTEENTH SUBDIVISION.

(COEUR D'ALENE BRANCH)

1. **Bridge and Engine Restrictions**—Engines Classes A, Q-5, Q-6, W-3, W-5, Z-2, Z-3 and Z-4 not permitted. Bridge 17, St. Regis River: Engines Classes W, W-1, W-2, W-4, Z and Z-1, ten (10) miles per hour. Bridge "O" Engines Classes W-3 and W-5 fifteen (15) miles per hour, to turn on wye.
2. **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.
3. **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 work-

ing 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.

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.

4. **Helper District**—Between Saltese and Wallace.

5. **Register Stations**—St. Regis. Wallace. Saltese for helper engines.

	Miles from St. Regis	Car Capacity
Wilk	7.0	8
Wence	18.3	4
Cooper	21.3	2
Pottsville	45.9	6
McKinnis	49.0	11
Hunter	49.3	15
Compressor	52.8	2
Golconda	54.3	6
Gentry	55.4	2

7. **Lap Sidings**—Saltese. Lookout.

SIXTEENTH SUBDIVISION.

(BURKE BRANCH)

1. **At Wallace**—Trains will protect against Fifteenth Subdivision trains between Station and Junction Switch.
2. **At Dorn**—Track connection to O. W. R. R. & N. cannot be used for high cars and must be operated at slow speed. 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 and, after securing engineman's signature, deposit same in box provided at Burke and Dorn.

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

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.

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

SEVENTEENTH SUBDIVISION. (SUNSET BRANCH)

- 1 **Mountain Grade Operations**—Mountain grade between Sunset 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 and after securing the engineman's signature, deposit same in box provided at Sunset or Bunn.

Trains originating east of and picking up at Bunn will make second air test and complete record on Form 3797 depositing same as above.

The air brakes must be charged to a maximum of ninety (90) pounds pressure on freight trains at Sunset 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 Sunset to Wallace.

Retaining valves must be used on all cars Sunset 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.

2. **Register Station**—Wallace.

3. **Derail Switches**—

Sunset main Track Below Switch.

4. **Commercial Spurs**—

	Miles from Wallace	Car Capacity
Mahoney	2.0	2
Stratton	2.1	20
Panhandle	3.1	12

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.
All trains thirty (30) miles per hour over interlocked crossings. Fifteen (15) miles per hour thru cross-overs, turnouts, gauntlets and passing telegraph offices where orders are received. Engines, Classes Z-3, thirty-five (35) miles per hour, A, Q-5 and Q-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.
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.
6. When it becomes necessary to temporarily utilize a side track as main track, in addition to setting and locking switches for side track, flagman with proper flagging material must be stationed to fully protect approaching trains per rules, until movement over main track is resumed. When conductors find it necessary to leave switches set for siding, they must fully protect approaching trains until relieved by trackmen, or other employees, fully competent and equipped to do so.
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.
15. 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. **BULLETIN STATIONS:**—
Livingston, Bozeman, Logan, Whitehall, Butte.
Helena yard office and Round House. Silver Bow—for O. S. L. trains. Garrison, Philipsburg.
Missoula passenger station, Yard office and Round House.
Polson, St. Regis, Wallace, Paradise.
19. **STANDARD TIME CLOCKS:**—
Livingston, Bozeman, Logan, Whitehall, Butte, Helena, Garrison, Philipsburg, Missoula passenger station and yard office, Polson, Wallace and Paradise.

20. WATCH INSPECTORS:—
H. N. Hull, Livingston.
R. R. Horner, Townsend.
S. V. Justus, Whitehall.
Chas. E. Laurenson, Philipsburg.
A. M. Flink, Wallace.
Leslie E. Gage, Bozeman.
R. W. Crawford, Helena.
J. D. Leys, Butte.
Kohn Jewelry Co., Missoula.
H. E. Rakeman, Polson.

NOTE

Effective with Time Table No. 66, Schedule meeting or passing stations are indicated by figures in full-faced type; numbers of the trains meeting, passing, or being passed will not be shown.

TONNAGE RATINGS—WESTWARD.

	ENGINES									
	Ruling Grade	Class S2	Class S10	Class W	Class W-1 and W-2	Class W3	Class Y1	Class Z2	Class Z3	Class Z4
Livingston to West End.....	1.8	400	....	950	1025	1240	775	1460	1900	2320
West End to Townsend.....	....	....	....	....	....	....	....	....	....	....
Townsend to Winston	1.0	950	....	1400	1510	2050	1375	....	....	....
Winston to Helena..	....	....	....	....	....	....	....	....	....	....
Logan to Whitehall..	0.5	1750	....	2500	2700	3240	2400	....	....	....
Whitehall to Homestake.....	2.2	400	....	700	755	860	575	1040	1250	1550
Homestake to Butte.	....	....	....	Descending	Mountain	Grade	....	....	....	....
Sappington to Norris	2.2	400	350	....	....	....	....	....	....	....
Whitehall to Alder..	1.0	600	....	....	....	....	....	....	....	....

TONNAGE RATINGS—EASTWARD.

	ENGINES									
	Ruling Grade	Class S2	Class S10	Class W	Class W-1 and W-2	Class W3	Class Y1	Class Z2	Class Z3	Class Z4
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	....	....	....
Logan to Bozeman.. (New Line)	0.4	1750	....	2750	2970	4000	2400	....	....	....
Bozeman to Muir...	1.9	400	....	900	970	1250	750	1400	1850	2320
Muir to Livingston..	....	....	....	Descending	Mountain	Grade	....	....	....	....
Butte to Homestake.	2.2	400	....	600	650	775	575	1040	1100	1300
Homestake to Whitehall.....	....	....	....	Descending	Mountain	Grade	....	....	....	....
Whitehall to Logan..	....	....	....	....	....	....	....	....	....	....
Norris to Sappington	1.3	600	550	....	....	....	....	....	....	....

TONNAGE RATINGS.

EASTWARD	ENGINES						
	Ruling Grade	W Sup.	W-3	W-5	Z	Z-1	Z-3
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	....	....	....	....	....
Evaro - Missoula.....	Down	Car	Limit	....	....	....	....
Missoula - Garrison.....	0.4	2400	3700	....	....	....	4500
Garrison - Elliston.....	1.0	1600	2000	....	2000	....	2500
Elliston - Blossburg.....	1.4	1100	1500	....	1500	....	2100
Blossburg - Helena.....	Down	Car	Limit	....	....	....	....
Garrison - Stuart.....	0.7	1800	2500	....	....	....	....
Stuart - Butte.....	1.0	1500	2100	....	....	....	....
Wallace - Dorsey.....	2.2	....	....	....	875	750	....
Dorsey - Lookout.....	4.0	....	....	....	450	375	....
Lookout - Sohon.....	Down	Limit	2600 tons	acc't	4% grade	....	....
Sohon - St. Regis.....	Down	Car	Limit	....	....	....	....
WESTWARD							
Helena - Blossburg.....	2.2	700	800	....	800	....	1150
Blossburg or Butte to Missoula.	Down	Car	Limit	....	....	....	....
Missoula to Paradise (Via St. Regis).....	0.4	Car	Limit	....	....	....	....
DeSmet - Evaro.....	2.2	700	....	....	....	....	....
Evavo - Paradise.....	Down	Car	Limit	....	....	....	....
St. Regis - Saltese.....	1.0	....	....	....	2000	1650	....
Saltese - Sohon.....	2.2	....	....	....	875	750	....
Sohon - Lookout.....	4.0	....	....	....	525	425	....
Lookout - Dorsey.....	Down	Limit	2000 tons	acc't	4% grade	....	....
Dorsey - Wallace.....	Down	Car	Limit	....	....	....	....

J. R. SMITH,
Trainmaster.

T. J. REGAN,
Trainmaster.

DAN HEALY,
Trainmaster.

F. G. COOK,
Roadmaster,
Trainmaster.

A. J. CARR,
Chief Dispatcher.

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													
1'0" Wide	2'0" Wide	3'0" Wide	4'0" Wide	5'0" Wide	6'0" Wide	7'0" Wide	8'0" Wide	Max. Height	Max. Width				
1st Subdivision.	M. L., Livingston to Logan...	17'8"	17'5"	17'2"	16'11"	16'9"	16'6"	16'3"	16'2"	16'1"	17'8"	11'6"	Bozeman Tunnel
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"	Homestake Tunnel and Tunnel at M. P. 57½
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"	Bridge 167.8
	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"	Iron Ridge Tunnel
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"	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"	19'7"	11'6"	B. A. & P. Overhead
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"	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"	21'0"	11'6"	
7th Subdivision.	Mission to Wilsall.	21'6"	21'6"	21'6"	21'6"	21'6"	21'6"	21'6"	21'4"	21'1"	21'6"	11'6"	
8th 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"	
9th Subdivision.	Manhattan to Ancney.	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"	Bridge No. O, 10 & 15
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"	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"	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"	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"	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"	21'0"	11'6"	
15th 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"	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"	21'0"	11'6"	

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"	15'5"	15'2"	14'9"	14'8"	14'3"	13'10"	13'6"	17'8"	11'6"	Bozeman Tunnel
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
3rd 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
4th 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
5th 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
6th 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
7th 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"	
8th Subdivision..	Mission to Wilsall.....	20'10"	20'7"	20'4"	20'1"	20'0"	19'10"	19'6"	19'3"	21'0"	11'6"	Bridge No. O, 10 & 15
9th Subdivision..	Livingston to Gardiner.....	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"	
10th Subdivision..	Manhattan to Ancney.....	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"	
11th 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"	
12th 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
13th 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
14th 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
15th Subdivision..	Dixon to Polson.....	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	21'0"	11'6"	
16th 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"	