

THE UNION PACIFIC COAL COMPANY

13

File No. 353-11

SUBJECT:

COAL CRUSHER EQUIPMENT

OFFICE OF  
PRESIDENT

Volume I

From Oct. 21, 1924

To



353-11

Omaha - Feb. 24, 1939.

Mr. H. C. Mann:

Sometime ago Fuel Engineer O. K. Woods spent a day with us at Rock Springs discussing quality of fuel, etc. Mr. Woods made the statement (which came to me very much as a surprise), that a great many of the railroad coaling stations are equipped with crushers located between the loaded car where it is dumped and the elevator feeder with no provision for by-passing the fines and intermediate sizes past the crusher, with the result that the entire volume of coal discharged from the railroad car passes through the crusher, the large lumps not only broken down to the established size, but the nut and egg, in turn, are in addition very largely broken down to slack size with the end result that a tremendous unnecessary increase in volume of slack reaches the locomotives.

This goes back to original construction and I presume it would be difficult to correct same at the present time unless it were possible to move the crushers up into the top of the coaling stations, passing the mine run over some kind of a screen that would separate all fines from the lump, crushing the lump only.

This may have been the simplest method of crusher installation, but certainly the arrangement has reduced millions of tons of egg and nut into slack that would have made better locomotive coal if it had not been crushed.

With a view of developing a possible correction of this situation, I asked our people to prepare estimates as to the cost of installing crushers in our mines not so equipped, excluding the old mines at Superior which will soon be worked out, this estimate running as follows:

Rock Springs No. 4 Mine	\$15,218.50
" " " 8 "	7,541.60
D. O. Clark Mine, Superior	<u>11,622.80</u>
Total	\$34,382.90

The D. O. Clark Mine will last for at least a couple of generations, No. 4 Mine at Rock Springs about six years and No. 8 Mine at Rock Springs about eight years. The expense of establishing a crusher at No. 4 Mine due to the old timber tipple in use you will note is very heavy and thereafter remains the matter of crushing lumps at the commercial mines which would be necessary if all of the coal chute crushers were removed.

If you think something might be developed in this direction that would not only improve the unit consumption of fuel but eliminate some of the slack coal complaints received from time to time I would be glad to discuss the matter with you.

Original Signed  
EUGENE McALPIN



Omaha - Feb. 21, 1939.

Mr. G. B. Pryde:

Yours of the 16th with detail for the crushers at the D. O. Clark  
Mine tipple, Superior, and Nos. 4 and 8 Mine Tipples, Rock Springs:

I doubt very much if we would receive authority to spend \$35,000  
on this. I will look into the matter as soon as possible, advising you.

Original Signed  
EUGENE MCAULIFF  
Per R. W. P.



Rock Springs - February 16, 1939

Mr. Eugene McAuliffe:

Herewith estimates and prints for the installation of crushers at the D. O. Clark Mine tipple, Superior, and Nos. 4 and 8 Mine Tipples, Rock Springs, the amount aggregating approximately \$35,000.

Inasmuch as the D. O. Clark Mine tipple will have a long life, it would seem to be justified, and also at No. 8 Mine tipple, where the expense is not so great. But it would seem a lot of money to spend at No. 4 Mine tipple, Rock Springs, where the installation will be very difficult.

I should like to discuss this with you when you are next out here. However, am sending this file to you now so that you may discuss it with the railroad people, and develop if they desire to go to this expense in crushing the lumps.

# 4 RS \$ 15,218.50  
8 " 7,541.60  
Doe 11,822.80  

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34,582.90

Geo. Minge



Estimate for  
CRUSHER INSTALLATION

No. 4 Mine, Rock Springs

20,000' B.M. Lumber, @ \$60.00 per M	\$1,200.00
15 Cu. Yds. Concrete Foundations, @ \$25.00 per Cu. Yd.	375.00
2,000 Sq. Ft. corrugated iron, @ 12¢/Sq.Ft.	240.00
Door and Windows	60.00
One 30" x 30" Single-Roll Crusher, and 20-H.P. Motor (Complete)	3,660.00
60' belt conveyor, @ \$30.00 per foot	1,800.00
1 10-H.P. motor for conveyor drive (complete)	400.00
1 Speed Reducer and coupling	600.00
70' Flight Conveyor, @ \$60.00 per foot	4,200.00
1 5-H.P. motor for conveyor drive (complete)	300.00
1 Speed reducer and coupling	500.00
Chutes and Hoppers (installed)	500.00
	<hr/>
	\$13,835.00
Plus 10 per cent, Engineering and Contingencies	<hr/> 1,383.50
TOTAL	\$15,218.50

Estimated by  
J. V. McClelland  
Rock Springs, Wyoming  
February 13, 1938



Estimate for  
CRUSHER INSTALLATION

No. 4 Mine, Rock Springs

20,000' B.M. Lumber, @ \$60.00 per M	\$1,200.00
15 Cu. Yds. Concrete Foundations, @ \$25.00 per Cu. Yd.	375.00
2,000 Sq. Ft. corrugated iron, @ 12¢/Sq.Ft.	240.00
Door and Windows	60.00
One 30" x 30" Single-Roll Crusher, and 20-H.P. Motor (Complete)	3,660.00
60' belt conveyor, @ \$30.00 per foot	1,800.00
1 10-H.P. motor for conveyor drive (complete)	400.00
1 Speed Reducer and coupling	600.00
70' Flight Conveyor, @ \$60.00 per foot	4,200.00
1 5-H.P. motor for conveyor drive (complete)	300.00
1 Speed reducer and coupling	500.00
Chutes and Hoppers (installed)	500.00
	<hr/>
	\$13,835.00
Plus 10 per cent, Engineering and Contingencies	<hr/> 1,383.50
TOTAL	\$15,218.50

Estimated by  
J. V. McClelland  
Rock Springs, Wyoming  
February 13, 1938



PROPOSED CRUSHER INSTALLATION  
No. 4 MINE - ROCK SPRINGS  
Sheet 1 of 2 Sheets.



PROPOSED CRUSHER INSTALLATION

No. 8 MINE - ROCK SPRINGS



PROPOSED CRUSHER INSTALLATION

No. 4 MINE - ROCK SPRINGS

Sheet 2 of 2 Sheets.



Estimate for  
CRUSHER INSTALLATION

No. 8 Mine, Rock Springs

4,600' B.M. Lumber, @ \$60.000 per M.	\$ 276.00
8 Cu. Yds. Concrete (Foundations) @ \$25.00 per cu. yd.	200.00
1,000 sq. ft. corrugated iron @ 12¢ per sq. ft.	120.00
One 30" x 30" Single Roll Crusher, and 20-H.P. motor (complete)	3,660.00
50' Belt Conveyor, @ \$30.00 per foot	1,500.00
1 5-H.P. motor for conveyor drive (complete)	300.00
1 Speed Reducer and coupling	500.00
Chutes and Hoppers (installed)	300.00
	<hr/>
	\$6,856.00
Plus 10 per cent, Engineering and Contingencies	685.60
	<hr/>
TOTAL	\$7,541.60

Estimated by  
J. V. McClelland  
Rock Springs, Wyoming  
February 13, 1939



Estimate for  
CRUSHER INSTALLATION

No. 8 Mine, Rock Springs

4,600' B.M. Lumber, @ \$60.000 per M.	\$ 276.00
8 Cu. Yds. Concrete (Foundations) @ \$25.00 per cu. yd.	200.00
1,000 sq. ft. corrugated iron @ 12¢ per sq. ft.	120.00
One 30" x 30" Single Roll Crusher, and 20-H.P. motor (complete)	3,660.00
50' Belt Conveyor, @ \$30.00 per foot	1,500.00
1 5-H.P. motor for conveyor drive (complete)	300.00
1 Speed Reducer and coupling	500.00
Chutes and Hoppers (installed)	<u>300.00</u>
	\$6,856.00
Plus 10 per cent, Engineering and Contingencies	<u>685.60</u>
TOTAL	\$7,541.60

Estimated by  
J. V. McClelland  
Rock Springs, Wyoming  
February 13, 1939



Estimate for  
CRUSHER INSTALLATION

D. O. Clark Mine Tipple - Superior, Wyo.

<u>Item</u>	<u>Weight or Quantity</u>	<u>Material</u>	<u>Freight and Express</u>	<u>Hauling</u>	<u>Labor</u>	<u>Total</u>
1. Single Roll 30"x30" spring relief crusher 1 $\frac{1}{4}$ "x8" product Crusher motor 20 H.P. Ind. 220V.D.C. 900 R.P.M. type KG totally enclosed for cooled frame 405 V-Belt Drive and Mag. Control	10,500# 1,000#	2,100.00 415.00 450.00	350.00 35.00	25.00 5.00	200.00 20.00 60.00	2,675.00 475.00 510.00
2. Conveyor No. 1 (from pick table to crusher) 10 lin. ft. conveyor and frame @ 60.00 Speed reducer and couplings 5-HP T. E. Fan cooled Ind. motor type K.G. Fr. #324 Magnetic controls Plate Work (chutes)	2,000# 600# 400# 1,000#	600.00 425.00 200.00 50.00 100.00	60.00 18.00 12.00 20.00	10.00 5.00 5.00	150.00 45.00 20.00 10.00 50.00	820.00 493.00 237.00 60.00 175.00
3. Conveyor No. 2 (crusher to loading boom) 20 Lin. Ft. Conv. and Frame @ 60.00 Speed reducer and flex. couplings 5-HP. T. E. F. C. Ind Motor type K.G. Frame #324 Magnetic controls Plate work (chutes)	4,000# 600# 400# 1,000#	1,200.00 425.00 200.00 50.00 100.00	120.00 18.00 12.00 20.00	10.00 5.00 5.00	300.00 45.00 20.00 10.00 50.00	1,630.00 493.00 237.00 60.00 175.00
4. Wiring (conduit, controls, etc.)		300.00			300.00	600.00
5. Structural supports for crusher	7,400# @ 0.10					740.00
6. Structural supports addn. bldg.	3,300# @ 0.10					330.00
7. Concrete foundations	12.0 cu. yds. @ 24.00					288.00
8. Reinf. conc. floors	430 sq. ft. @ 0.60					258.00
9. Corrugated covering	1,100 sq. ft. @ 0.12					132.00
10. Moving outside stairway and doors		100.00			200.00	300.00
11. Moving under-cut gate on domestic bin		10.00			50.00	60.00

Plus 10 per cent, Engineering and Contingencies

10,748.00  
1,074.80

Estimated by

H. C. Livingston, Rock Springs, Wyoming, February 13, 1939

\$11,822.80



Estimate for  
CRUSHER INSTALLATION

D. O. Clark Mine Tipple - Superior, Wyo.

<u>Item</u>	<u>Weight or Quantity</u>	<u>Material</u>	<u>Freight and Express</u>	<u>Hauling</u>	<u>Labor</u>	<u>Total</u>
1. Single Roll 30"x30" spring relief crusher 1 1/2"x8" product Crusher motor 20 H.P. Ind. 220V.D.C. 900 R.P.M. type KG totally enclosed for cooled frame 405 V-Belt Drive and Mag. Control	10,500# 1,000#	2,100.00 415.00 450.00	350.00 35.00	25.00 5.00	200.00 20.00 60.00	2,675.00 475.00 510.00
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3. Conveyor No. 2 (crusher to loading boom) 20 Lin. Ft. Conv. and Frame @ 60.00 Speed reducer and flex. couplings 5-HP T. E. F. C. Ind Motor type K.G. Frame #324 Magnetic controls Plate work (chutes)	4,000# 600# 400# 1,000#	1,200.00 425.00 200.00 50.00 100.00 300.00	120.00 18.00 12.00 20.00	10.00 5.00 5.00	300.00 45.00 20.00 10.00 50.00 300.00	1,630.00 493.00 237.00 60.00 175.00 600.00
4. Wiring (conduit, controls, etc.)	7,400# @ 0.10					740.00
5. Structural supports for crusher	3,300# @ 0.10					330.00
6. Structural supports addn. bldg.	12.0 cu. yds. @ 24.00					288.00
7. Concrete foundations	430 sq. ft. @ 0.60					258.00
8. Reinf. conc. floors	1,100 sq. ft. @ 0.12					132.00
9. Corrugated covering		100.00			200.00	300.00
10. Moving outside stairway and doors		10.00			50.00	60.00
11. Moving under-cut gate on domestic bin						

Plus 10 per cent, Engineering and Contingencies

10,748.00

1,074.80

\$11,822.80

Estimated by

H. C. Livingston, Rock Springs, Wyoming, February 13, 1939



PROPOSED CRUSHER INSTALLATION

D.O. CLARK MINE

SUPERIOR WYO.



Omaha - Feb. 16, 1939.

Mr. G. B. Pryde:

You will recall that you were to give me an approximate estimate of installation of crushers at Rock Springs Nos. 4 and 8 and the D. O. Clark Mine so that we could crush the lumps for the railroad fuel. Will you please expedite this as much as possible.

Original Signed  
EUGENE MCAULIFFE



GRAM

SYMBOL	X	CLASS OF SERVICE REQUIRED	
Px		Preferred	Immediate delivery
Dx		Day	Delivery during day
Nx		Night	Delivery by next morning

Indicate by X in proper line  
the class of service required.Do not specify preferred  
service if other service will  
answer the purpose.Med.....M  
553gr si hi

Rocksprings 945am Oct 13 1925

E McAuliffe Omaha

M-94. Reliance (Rocksprings, number 2) and Superior C Mines E--310.

G B Pryde.

1145a



GRAM

SYMBOL	X	CLASS OF SERVICE REQUIRED	
Px		Preferred	Immediate delivery
Dx		Day	Delivery during day
Nx		Night	Delivery by next morning

Indicate by X in proper line  
the class of service required.

Do not specify preferred  
service if other service will  
answer the purpose.

Filed.....M  
Omaha - Oct. 12, 1925

G. B. Pryde - Rk. Springs

Advise mines Rock Springs district equipped with  
crushers. M-94.

E. McAuliffe



Rock Springs - Oct. 25, 1924.

Mr. Eugene McAuliffe:

Was at Hanna yesterday and looked over the new crusher installation at No. 4. It is working very well. There are a few finishing touches to be put on in the way of housing, etc. The job is nearly completed.

When driving around northeast of No. 3 Mine, I saw McMillan of the Colorado Central Coal Company putting up a shack near the south line of Section 4. I understand that he plans to start a small coal mine and haul coal into Hanna by wagon and sell it. His revenue will be pretty slim from this source, as there are few employees at Hanna outside of the Coal Company and Railroad Company employees.

Gray D. Hyde.



Rock Springs - Oct. 21, 1924.

Mr. Eugene McAuliffe:

Have just talked with Mr. Butler and he made a half day trial run of the crusher installation at No. 4 and everything is working fine. He says the installation is a success. I was glad to have this information as the installation was a rather complicated one on account of the limited space we had for the plant.

*George D. Hyde.*