

# Lake Shore Engineering Company

IRON MOUNTAIN, MICHIGAN

July 20, 1940

Mr. W. A. Schacht  
Painesdale, Michigan

Dear Bill:

I am enclosing with this letter a copy of our contract with the Inland Steel Company.

I would appreciate it if you would keep this contract in your own files until you are through with it.

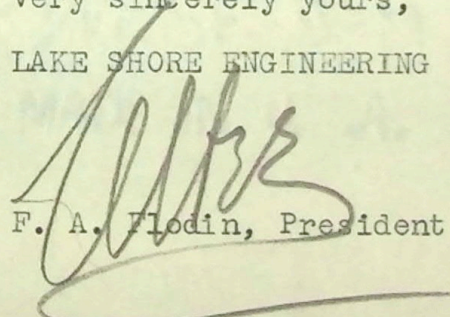
Should you be interested in going into a deal for a hoist of this kind, it certainly would be economical to work it along with the present job that we have.

Please let me hear from you at your convenience.

With kindest personal regards, I am

Very sincerely yours,

LAKE SHORE ENGINEERING COMPANY

  
F. A. Flodin, President

FAF:J

Encl.

Adams Township, MI

# LAKE SHORE ENGINEERING COMPANY

MARQUETTE, MICHIGAN

March 1, 1941

Copper Range Company  
Painesdale, Michigan

Attention: Mr. William H. Schacht, President

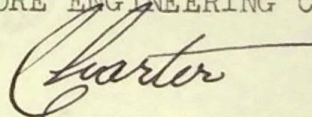
Dear Mr. Schacht:

During our conversation concerning hoists and cars the other day, I promised you a typed comparison with the Inland Steel Sherwood Mine and the Cleveland-Cliffs Section 2 hoists, but it is impossible for me to fulfill my promise because the only two copies of the specifications in this office were left with you and I would rather not make these comparisons unless they are accurate.

When you get around to it and no longer need the specifications left with you, if you will return them to me, I will fulfill my obligation.

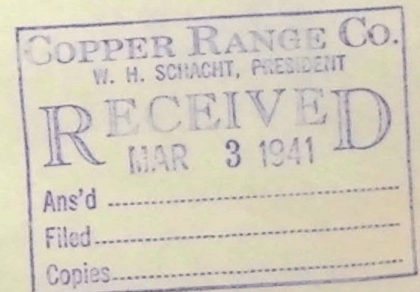
Yours very truly,

LAKE SHORE ENGINEERING COMPANY



CAC:M

C. A. Charter



Working for White Pine

Ship 9000 lbs. Speed of Rope 2000 ft per minute  
 One 14000 "

Rope  $2200 \times \frac{1}{2} = 6600$  lbs with 5.7 time factor of safety  
 29600 "

CCIC has 3000 HP motor  $\div 2.6 = 1150$  HP require W.P.  
 or 2 - 600 HP motor should be.

Recend. Ship 9000  
 Unbalanced 20600 = 41.2 million

$\frac{1116}{41.2}$  or CCIC. Hotel. = 2.6 time greater Cap.  
 $\frac{41.2}{18.34}$  = W.P. program = 2.25 times greater than Shuwood

Max load for 2500

	From Bottom	From 900 ft.
$\frac{1400}{2000} = 7$ minutes	= 42 second	$\frac{1000}{2000} = .5$ min = 30 sec
accelerant	12	12
Soaking	12	12
Blank	12	12
	78 second Max rate	66 sec
	Allow 12 second leeway =	75 sec

Avg working rate say, 90 sec or 1 1/2 minute per trip

$60 \div 1.5 = 40$  trips per minute  $\times 7$  tons = 280 tons per hour

$280 \times 8$  hours = 2240 tons per hour call it 2000 tons per hour

2 shifts = 4480 tons

$60 \div 1.25 = 48$  trips per min  $\times 7$  tons = 330 tons  
 $330 \times 8 = 2640$  tons  
 2 shifts = 5280 tons

52 units of 1000 tons each for building or 5000 tons total capacity

2.6 | 3000 HP. | 1150 HP. require of W.P. | Will require 2500 Rope Capacity or 8' Dia of line drum

10 ft dia = 31.4 ft.  
 6 ft.  $\times 12 = 72$   $\div 1375 = 52$  Turns of rope  
 50 turns  $\times 31.4$  ft = 1570 ft. of rope

9 ft. = 28.2  
 6 ft.  $\times 12 = 72$   $\div 1375 = 52$  turns  
 50 turns  $\times 28.2 = 1400$  ft.

8 ft. = 25 ft.  
 6 ft. = 52 turns  
 50  $\times 25 = 1250$  ft.