NOTES ON PROPOSED ENLARGEMENT OF TRIMOUNTAIN SKIP

Large Champion Skip
Gauge 4' - 8½"

Skip at Trimountain, #2,
Gauge 4' - 1"
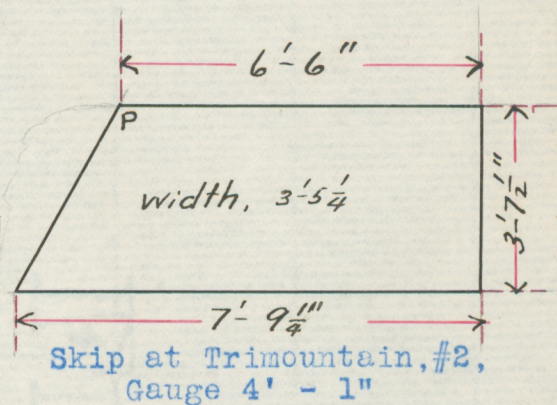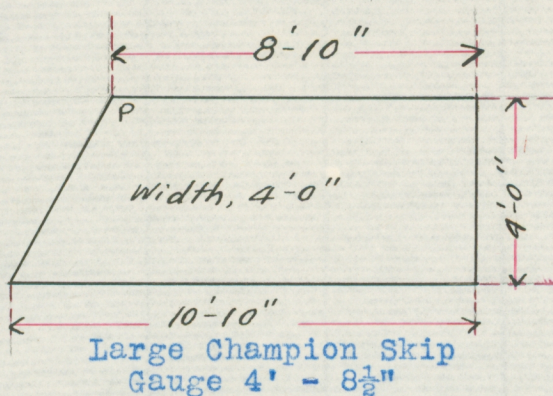
Capacity of Champion skip to point P   141 cu. ft.

"   "   Trimountain " "   "   P   81 "   "

Difference   60 "   "

Leaving the width and height the same we have 3.44 x 3.62 = 12.45 sq.ft.

$$\frac{60}{12.45} = 4.8 \text{ ft.}$$

Therefore the Trimountain skip would have to be lengthened 4' 9½" to make it equal in capacity to the Champion skip. This would make the top length 11'-3½", and the bottom 12'-6½", width and height remaining the same as at present.   If we make the length the same as the Champion skip, 8'-10", we have 12.45 x 8.83 = 109.9 Cu. ft. 141 - 109.9 = 31.1 cu. ft. to provide for to make both skip equal in capacity.   Leaving the width the same, and increasing the height, we have: $\frac{31.1}{8.83 \times 3.44}$ = 1.03. Therefore the height would have to be increased 1'- 0½".

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Now the dimensions of the standard underground car are: width 3', height 2', length 9". 3 x 2 x 9 = 54 cu. ft. = capacity of car when filled full, or 108 cu. ft. for 2 cars. Therefore, if we made the Trimountain skip the same length as the Champion, leaving width and height the same

as at present, it would just hold two cars of rock, the cars being
even full. If the Trimountain skip is made 1 ft. longer than the
Champion, width and height remaining as at present, we have:-

$$9.83 \times 3.44 \times 3.62 = 122.4 \text{ cu. ft.}$$

Adams Township, MI

Requisition No. _____

Drawn by _HGM._____

Checked by _____

ENGINEER'S OFFICE

CHAMPION COPPER CO.

PAINESDALE, MICH.

F. P. No. _1601-B_

Date _Jan. 28_ 1911

SUBJECT _List of Plates for New 6-Ton Trimountain #2 Skip_

Description	No. Required	Size	
Top Plate	1	½" x 3'-4½" x 10'-11"	11'-6"
Bottom Plate	1	½" x 3'-4½" x 12'-2"	13'-2"
End "	1	½" x 3'-3½" x 3'-9"	11'-6
Side Plates	2	½" x 3'-9" x {10'-11" / 12'-2"}	Top / Bottom
False Bottom Plate	1	½" x 3'-1" x 6'-11"	7'-11"
" " "	1	½" x 3'-1" x 5'-0"	
" End "	1	½" x 3'-1" x 3'-6½	
Reinforcing Plate	2	½" x 2'-7" x 3'-9"	

13-2

11'-6"
10'-11"
3'-9"
12'-2"
13-2
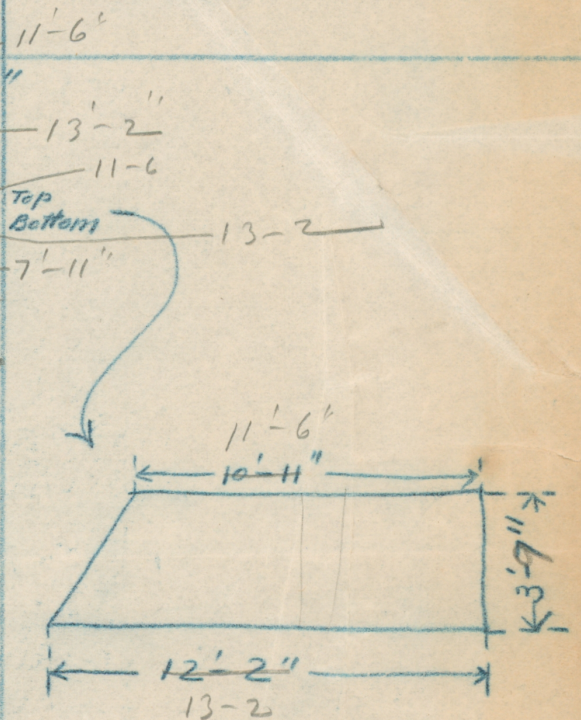
Plates Required for one Skip

O.K.