

Test 69 - Cat Mining

Date 23-Apr-09
 Dropped Mass 450 kg
 Height 1st drop 1.00 m
 Impact 1st drop 4.4 m/s
 Velocity
 Stope Height 1.2m

Client Cat Mining Supplies
 Support Type Mine Safety Nets

Description of net The net is constructed of 7mm polysteel, hand-braided rope with no re-enforcing. The aperture size is 75mm on a square pattern. The size of the net tested was 1.5m x 1.5m. The net was attached directly to the four camlocks. This is the same net as in "Test 67". The corner that broke was re-spliced (Photo 1).

Description of test **1st Drop:** The net was installed with a spacing between the hanging wall and the net being 55mm (Photo 2). The first drop was from a height of 1m above the center of the net. The net failed to arrest the 450kg weight with an impact velocity of 4.4m/s. The net failed on the corner where it had been re-spliced. (Photo 4)



Photo 1: Prior to testing. View of the re-spliced corner.



Photo 2: Prior to testing. The 1.5m x 1.5m net installed with a hanging wall to net spacing of 55mm.



Photo 3: West to east view of the net prior to the 1m drop.



Photo 4: West to east view of the net after the 1m drop test. The net failed on the re-spliced corner.

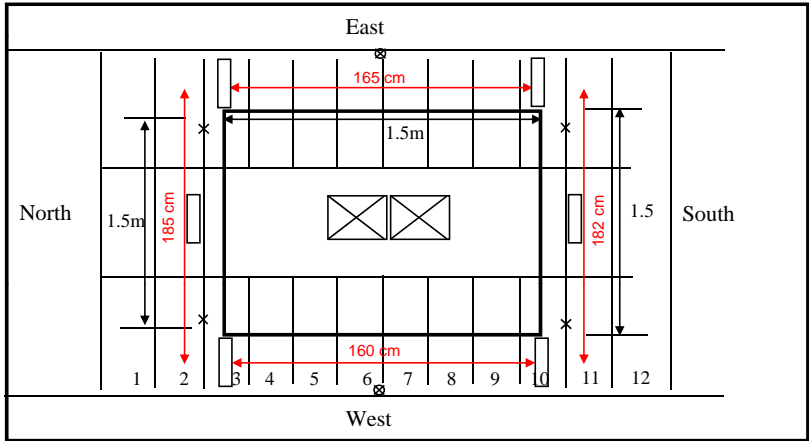
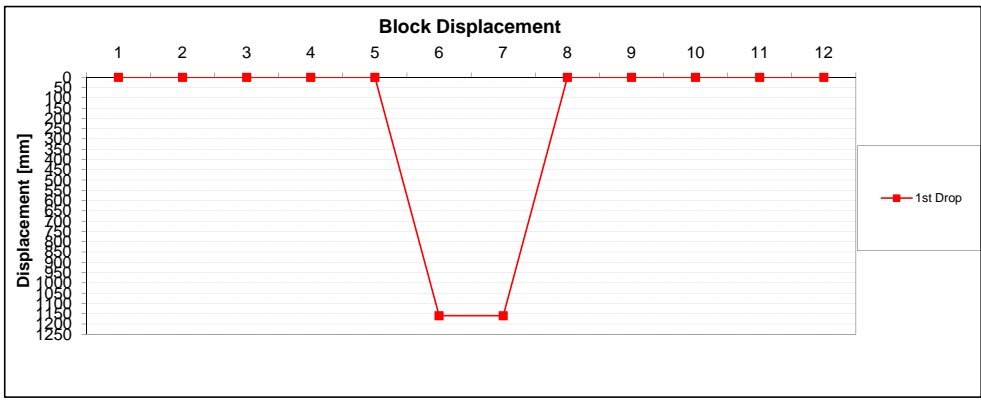
Block displacements

Block displacement [mm]												
Block no	1	2	3	4	5	6	7	8	9	10	11	12
1st Drop	N/A	N/A	N/A	N/A	N/A	1160	1160	N/A	N/A	N/A	N/A	N/A

N/A: Measurement could not be taken

Remarks

The net failed to arrest the blocks from a height of 1m and the net failed on the re-spliced corner. The meshes of the net sustained no damage.



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|--|-----------------------------|---|---------------------------------|
| | Blocks dropped onto the net | × | Tie downs |
| | Concrete blocks | | Camlok Props |
| | | | Net perimeter |
| | | | Camlok center to center spacing |