

622.235

... , ... (« »)
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Experimental results for blast of the charge with wedge-shaped inserts at different opening angles and its effect on the quality of bench preparation are described.

Key words: charge design, wedge-shaped insert, blast-hole, explosive pulse, opening angle.

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 [1].
 ,
 ,
 (),
 , [2-4].
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 .
 ; ;
 ; ;
 , ;
 , () ; ,

[3, 5].

()

(),

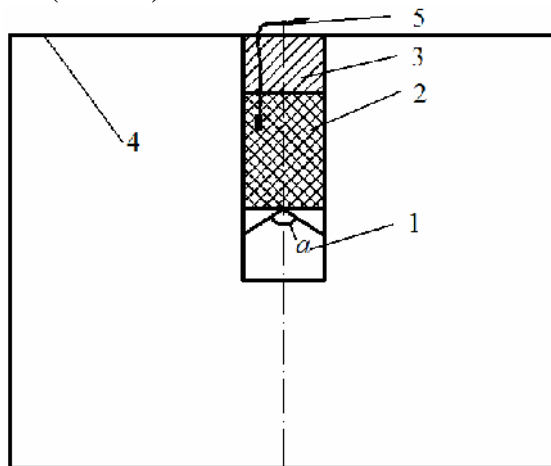
[6],

[7],

[5, 8],

[7, 9].

120×120×120 (. 1).



. 1.

; 4 -

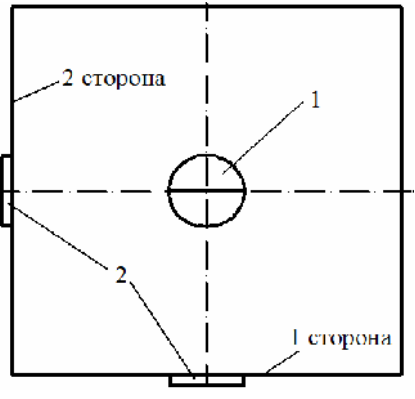
; 5 -

: 1 -

; 2 -

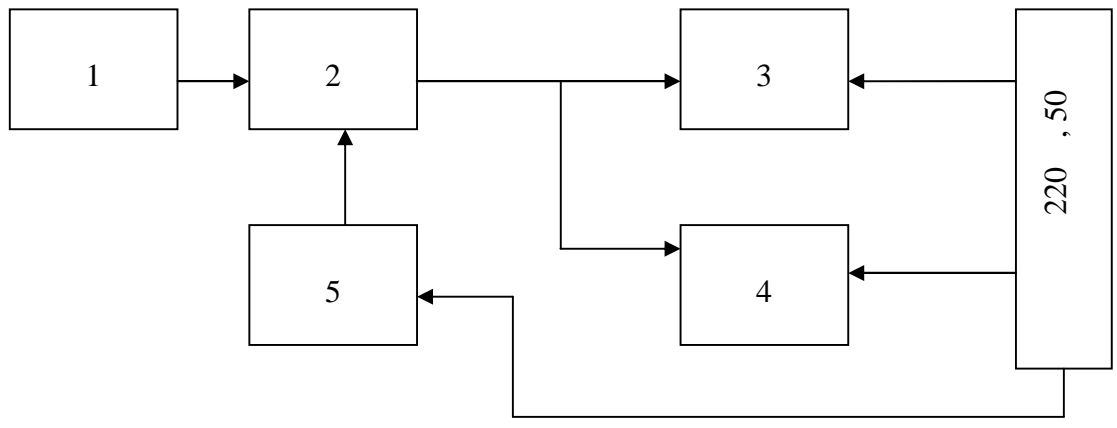
; 3 -

8 70
 10 60
 - 2
 = 30°, 60°, 90° 120°,
 (. 2), -440
 14 -440
 0,3-100



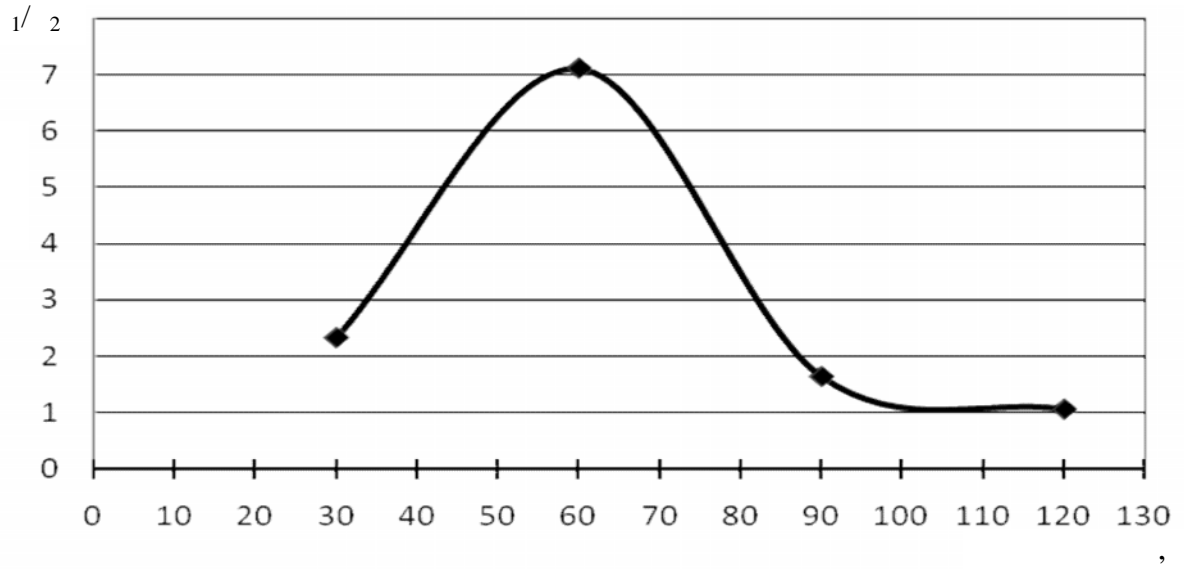
. 2. ; 2 - ' : 1 -

(. 3).



. 3. - : 1 - ' (-4, -5); 2 - Power
 Gra h; 5 - , ±15 (-2); 3 - 14-440; 4 -

(¹ ²,
I)
(2).
.4 .



. 4.

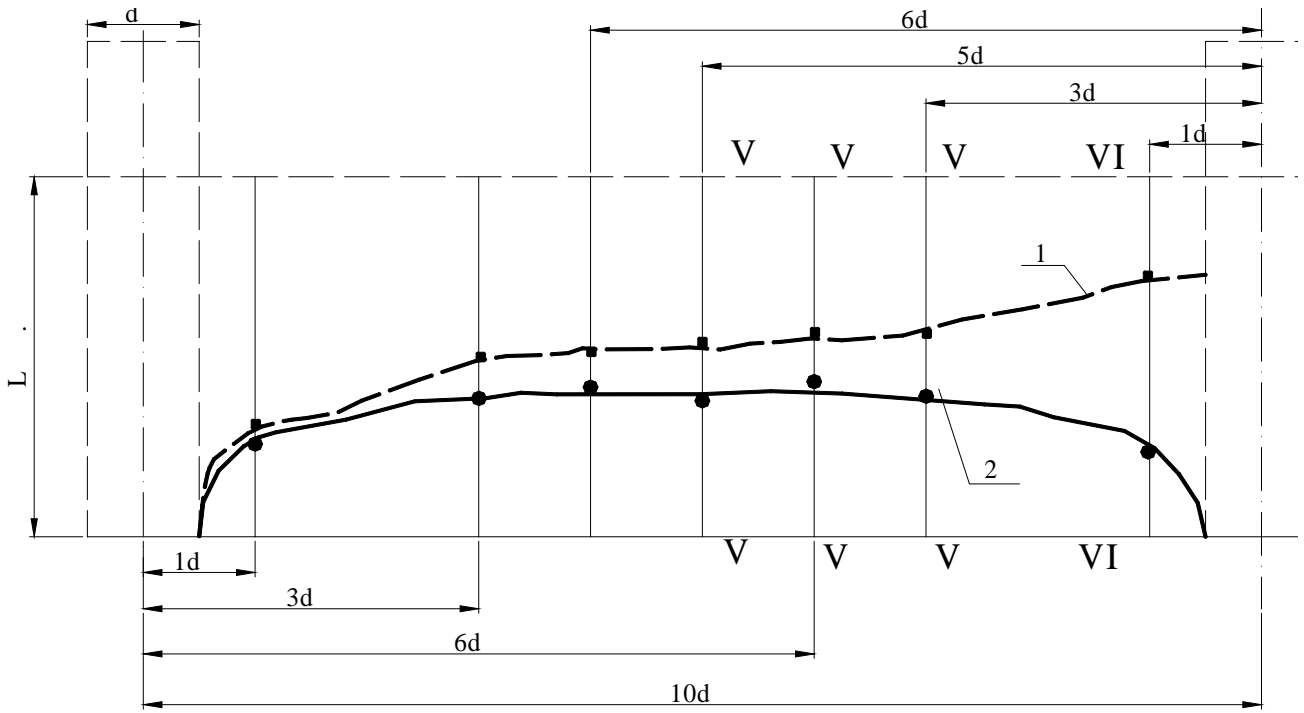
			$V,$		$t,$		$t+,$		S_g		$, / ^2$		$1/ 2$
	1	2	1	2	1	2	1	2	1	2	1	2	
30°	-1	-2	0,29	0,13	0,005	-	0,25	-	4,13	4,03	0,07	0,03	2,33
60°	-1	-2	10,32	1,4	0,1	0,02	0,2	0,13	4,13	4,03	2,49	0,35	7,11
90°	-1	-2	10,32	6,14	0,025	0,015	0,2	0,08	4,13	4,03	2,49	1,52	1,64
120°	-1	-2	1,36	1,23	-	-	0,12	0,11	4,13	4,03	0,33	0,31	1,06

; $S_g -$; $t -$; $t+ -$

60°.

. 4 , 90° (45°)

(. 5).



. 5. : 1 -
60°; 2 -
60°

. 5	2,6	3,5	9 %;
- - 4,0	3,8	5,0	12 %;
V- V	5	5,3	13 %
		3,9	V- V
			5,4
			15 %.

1.

2.

60°.

3.

5

15 %

- 1. / -
- ∴ , 1978. - 239 .
- 2. /
- ∴ , 1990. - 120 .
- 3. / ,
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7.11.2012 .