

RESTRICTED

CHAPTER 7

FIELD DEFENSE AND OBSTACLES

SECTION 11

READY RECKONER FOR WIRE OBSTACLE

1101. **Introduction.** Barbed wire can form an effective obstacle against infantry and it is essential that all arms are trained in the construction and use of such obstacles. Deep rivers, canals, bogs and cliffs form effective delaying obstacles to infantry. Thick hedgerows, fences and woods which are only partial obstacles can be improved by barbed wire, by the addition of parts of standard fences on one or both sides or by entangling with loose wire.

Table: Work party times for Wire Obstacles

Serial	Task	Party	Quantity (yards)	Time by Day (Min)	Time by Night (No Moon)	Remarks
1.	Erecting Single Catwire fence (excl off-loading stores)	1 NCO & 10 men	100	40-50	90-120	
2.	Thickening Catwire fence by adding double height concertina	1 NCO & 10 men	100	30-40	75-100	
3.	Thickening Catwire fence by adding single height concertina	1 NCO & 10 men	100	25	75	
4.	Standard Triple concertina fence with screw pickets	1 NCO & 7 men	100	30-60	120	
5.	Standardize Triple concertina fence with angle-iron or forestry pickets	1 NCO & 7 men	100	60-100	160	
6.	Standardize double apron fence	1 NCO & 10 men	100	60-100	160	
7.	High wire fence	2 NCO & 14 men	100	120-160	330	
8.	Knife-rest	3 men	100	30	-	
9.	Wiring tree entanglement in thick undergrowth	8	100	40	-	

RESTRICTED

Table: Store Required for Various Barbed Wire Obstacle

Type of Obstacle	Stores Require per 100 yards									Man-Ids	Remarks
	Barbed wire concertina	Barbed wire (130 yards) coils	Pickets- long (angle iron or forestry)	Pickets- short (angle iron or forestry)	Mauls or Sledgehammers	SWG plain (yards)	Tracing Tapes	Wire Cutters	Wind lashing sticks		
Wiring tree entanglement in thick undergrowth	-	5	-	-	-	-	-	2	-	-	2 Billhooks, hand axes or matches
Low wire entanglement	-	15	-	200	5	-	-	2	6	36	
Catwire Fence	(a) Single Fence	12	6	64	-	-	-	4	2	10	35
	(b) Additional thickness double ht concertina	12	3	32	-	-	-	-	-	-	23
	(c) Additional thickness single ht concertina	6	3	32	-	-	-	-	-	-	17
Standard Triple concertina	18	2	52	-	3	-	-	7	7	46	
High Wire Fence	32	19	80	84	7	-	-	14	14	102	100 staples
Knife rest	-	1	4	-	-	20	-	2	2	5	1 pole 13fit long for one knife-rest 16 fit long

1102. **Sample Calculation of Various Wire Obstacle.**a. **Double Apron Fence of 600 yards.**(1) **Store Calculation.**

Serial	Item	Store for 100 ^x	Store for 600 ^x	10% Reserve	Total
1.	Barbed wire	13	78	8	86
2.	Long Piquet	40	240	24	264
3.	Short Piquet	82	492	50	542
4.	Wire cutter	02 Per party	04 for 02 section	01	05
5.	Windlassing stick	10 Per party	20 for 02 section	02	22
6.	Mauls and sledge hammer	05 Per party	10 for 02 section	01	11

b. **Time Calculation.**

1x Sec completes 100^x in 60 Minute

So, 1x Sec completes 600^x in 360 Minute

So, 2x Sec completes 600x in 180 Minute

c. **Manpower Calculation.**

(1) 2x section each moving 1 NCO and 10 men.

(2) This group will form TF-A.

1103. **Catwire Fence (Type-3) of 1200 Yds.**a. **Store Calculation.**

Serial	Item	Store for 100 ^x	Store for 1200 ^x	10% Reserve	Total
1.	Barbed wire concertina	30	360	36	969
2.	Barbed wire coil	12	144	15	159
3.	Long Piquet	128	1536	154	1690

RESTRICTED

b. Time Calculation.

1x sec completes 100^x in 75 minute by dark night

So, 1x section completes 1200^x in = $\frac{75 \times 1200}{100}$ minute by dark night

So, 2x Section completes 1200^x in = $\frac{75 \times 1200}{100 \times 2}$ minute by dark night
 = 7 Hours 30 minute.
 = 7.5 Hours

c. Manpower Calculation.

- (1) 2 x section each having 1 NCO and 10 men.
- (2) This will form TF-B

1104. Standardize Triple Concertina Fence of 300 yards.

a. Store Calculation.

Serial	Item	Store for 100 ^x	Store for 600 ^x	10% Reserve	Total
1.	Barbed wire concertina	18	54	6	60
2.	Barbed wire coil	02	06	1	07
3.	Long Piquet	52	156	16	172
4.	Mauls/sledge hammer	03 per section	06 for 02 section	01	07
5.	Wire cutter	01 per section	02 for 02 section	01	03
6.	Windlassing stick	07 per section	14 for 02 section	02	16

b. Time Calculation.

1x section completes 100^x in 160 minute

So, 1x section completes 300^x in 160 x 3 minute.

So, 2x Section completes 300^x in = $\frac{160 \times 3}{2}$ min by dark night
 = 4 section

c. Manpower Calculation.

- (1) 2 x section each having 1 NCO and 7 men.
- (2) This will form TF-3

RESTRICTED

1105. **High Wire Fence of 500 yards.**

a. **Store Calculation.**

Serial	Item	Store for 100 ^x	Store for 500 ^x	10% Reserve	Total
1.	Barbed wire concertina	32	160	16	176
2.	Barbed wire coil	19	95	10	105
3.	Long Piquet	80	400	40	440
4.	Short Piquet	84	420	42	462
5.	Mauls/Sledgehammer	07 per sec	14 for 02 sec	02	16
6.	Wire Cutter	02 per sec	04 for 02 sec	01	05
7.	Windlassing Stick	14 per sec	28 for 02 sec	03	31

b. **Time Calculation.**

1x section completes 100^x in 5.5 hour

So, 1x section completes 500^x in 3.5 x 5 hour.

So, 2x Section completes 500^x in = $\frac{5.5 \times 5}{2}$ minute by dark night
= 13.75 section hour.

c. **Manpower Calculation.**

(1) 2x section each having 02 NCO and 14 men.

(2) This will form TF-D.

1105-1200 Reserve.