

Table No. 5.—Black-steel-wire Ropes.

TABLE OF BREAKING-LOADS AND CORRESPONDING WORKING-LOADS FOR BLACK-STEEL-WIRE ROPES OF SPECIAL IMPROVED PATENT STEEL QUALITY USED FOR SINGLE WHIPS, SINGLE STROPS, OR LONG-EYED SNOTTERS AND FOR OTHER SIMILAR CASES WHERE THE LOAD IS CARRIED ON A SINGLE PART.

(Tensile strength of wires, 90/100 tons per square inch.)

Size of Rope.		Construction.—Six Strands of 19 Wires each.			Construction.—Six Strands of 24 Wires each.			Construction.—Six Strands of 37 Wires each.		
Circumference, in Inches	Diameter, in Inches (approx.).	Actual Breaking-load, in Tons.	Working-load, in Tons, &c.	Working-load, in Pounds.	Actual Breaking-load, in Tons.	Working-load, in Tons, &c.	Working-load, in Pounds.	Actual Breaking-load, in Tons.	Working-load, in Tons, &c.	Working-load, in Pounds.
1	5/16	3.0	T. cwt. qr. lb.	960	2.7	T. cwt. qr. lb.	864	2.9	T. cwt. qr. lb.	928
1 1/8	3/8	3.7	0 8 2 8	1,184	3.7	0 10 2 8	1,184	3.8	0 10 3 12	1,216
1 1/4	13/32	4.7	0 13 1 20	1,504	4.5	0 12 3 12	1,440	4.3	0 12 1 4	1,376
1 1/2	7/16	5.5	0 15 ? 24	1,760	5.4	0 15 1 20	1,728	5.3	0 15 0 16	1,696
1 3/4	15/32	6.7	0 19 0 16	2,144	6.3	0 18 0 0	2,016	6.4	0 18 1 4	2,048
1 7/8	1/2	8.1	1 3 0 16	2,592	7.3	1 0 3 12	2,336	7.7	1 2 0 0	2,464
1 5/8	9/16	9.1	1 6 0 0	2,912	8.4	1 4 0 0	2,688	9.0	1 5 2 24	2,880
1 3/4	19/32	10.7	1 10 2 8	3,424	10.2	1 9 0 16	3,264	10.4	1 9 2 24	3,328
2	5/8	12.4	1 15 1 20	3,968	11.5	1 12 3 12	3,680	11.9	1 14 0 0	3,808
2 1/8	11/16	13.6	1 18 3 12	4,352	12.8	1 16 2 8	4,096	13.6	1 18 3 12	4,352
2 1/4	23/32	15.6	2 4 2 8	4,992	14.3	2 0 3 12	4,576	15.3	2 3 2 24	4,896
2 3/8	3/4	17.6	2 10 1 4	5,632	15.8	2 5 0 16	5,056	16.2	2 6 1 4	5,184
2 1/2	13/16	19.1	2 14 2 8	6,112	17.4	2 9 2 24	5,568	18.1	2 11 2 24	5,792
2 3/4	27/32	20.5	2 18 2 8	6,560	19.8	2 16 2 8	6,336	20.2	2 17 2 24	6,464
2 7/8	7/8	22.9	3 5 1 20	7,328	21.6	3 1 2 24	6,912	22.3	3 3 2 24	7,136
3	29/32	25.4	3 12 2 8	8,128	23.4	3 6 3 12	7,488	24.6	3 10 1 4	7,872
3 1/8	15/16	28.9	4 2 2 8	9,248	25.4	3 12 2 8	8,128	26.9	3 16 3 12	8,608
3 1/4	1	30.7	4 7 2 24	9,824	27.4	3 18 1 4	8,768	29.4	4 4 0 0	9,408
3 1/2	1 1/32	33.6	4 16 0 0	10,752	30.5	4 7 0 16	9,760	30.6	4 7 1 20	9,792
3 3/4	1 1/16	36.6	5 4 2 8	11,712	32.7	4 13 1 20	10,464	33.2	4 14 3 12	10,624
3 7/8	1 1/8	39.6	5 13 0 16	12,672	35.0	5 0 0 0	11,200	36.0	5 2 3 12	11,520
3 5/8	1 5/32	41.8	5 19 1 20	13,376	37.3	5 6 2 8	11,936	38.8	5 10 3 12	12,416
3 3/4	1 3/16	45.1	6 8 3 12	14,432	39.7	5 13 1 0	12,704	41.7	5 19 0 16	13,344
3 7/8	1 1/4	48.6	6 18 3 12	15,552	42.2	6 0 2 8	13,504	44.7	6 7 2 24	14,304
4	1 9/32	50.9	7 5 1 20	16,288	46.0	6 11 1 20	14,720	47.8	6 16 2 8	15,296
4 1/8	1 5/16	54.6	7 16 0 0	17,472	48.7	6 19 0 16	15,584	51.1	7 6 0 0	16,352
4 1/4	1 11/32	57.1	8 3 0 16	18,272	51.4	7 6 3 12	16,448	54.4	7 15 1 20	17,408
4 3/8	1 3/8	61.0	8 14 1 4	19,520	54.3	7 15 0 16	17,376	56.2	8 0 2 8	17,984
4 1/2	1 7/16	65.0	9 5 2 24	20,800	57.2	8 3 1 20	18,304	59.6	8 10 1 4	19,072
4 3/4	1 15/32	67.7	9 13 1 20	21,664	60.2	8 12 0 0	19,264	63.3	9 0 3 12	20,256
4 7/8	1 1/2	71.9	10 5 1 20	23,008	64.7	9 4 3 12	20,704	67.0	9 11 1 20	21,440
4 5/8	1 9/16	74.8	10 13 2 24	23,936	67.9	9 14 0 0	21,728	70.8	10 2 1 4	22,656
5	1 19/32	79.2	11 6 1 4	25,344	71.1	10 3 0 16	22,752	74.7	10 13 1 20	23,904
5 1/8	1 5/8	83.7	11 19 0 16	26,784	74.5	10 12 3 12	23,840	78.8	11 5 0 16	25,216
5 1/4	1 11/16	88.5	12 12 3 12	28,320	77.9	11 2 2 8	24,928	83.0	11 17 0 16	26,560
5 3/8	1 3/4	96.5	13 15 2 24	30,880	84.9	12 2 2 8	27,168	89.3	12 15 0 16	28,576
5 1/2	1 27/32	104.9	14 19 2 24	33,568	94.0	13 8 2 8	30,080	98.3	14 0 3 12	31,456
6	1 29/32	115.5	16 10 0 0	36,960	101.7	14 10 2 8	32,544	107.6	15 7 1 20	34,432