

Table No. 19.—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 1 1/4 1 1/2 1 3/4	5/16	3.0	T. cwt. qr. lb. 0 8 2 8	960	2.7	T. cwt. qr. lb. 0 7 2 24	864	2.9	T. cwt. qr. lb. 0 8 1 4	928
	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
	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
	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
2 1 1/2 1 3/4 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
	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
	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
	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 1 3/4 2 2 1/4	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
	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
	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
	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
4 1 1/2 2 2 1/4	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
	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
	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
	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
5 1 3/4 2 2 1/4	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
	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
	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
	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 2	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