CHAPTER 2
REFERENCE TABLES

2-1. General

This chapter contains reference tables of miscellaneous information on materials used to fabricate and maintain air items and to rig airdrop equipment. If detailed information, other than that listed in these tables, is required on specific materials, the DOD Index of Specifications and Standards should be consulted.

2-2. Textile Terminology

The textile products listed in this chapter are defined as follows:

a. Cord. Cord is a fibrous, braided, cordage item of any diameter.

b. Tape. Tape is a narrow fabric, woven or knitted, produced in widths up to and including 8 inches and in weights up to but not including 0.42 ounces per linear yard of 1-inch width.

c. Thread. Thread is a thin, twisted, smooth strand or filament of vegetable, animal, mineral, or synthetic material, spun out to considerable length, used mainly for hand sewing and machine sewing. The use of thread is determined by a letter or numerical designation which is synonymous.

d. Webbing. Webbing is a narrow fabric, woven or knitted, produced in widths up to and including 12 inches and in weights of 0.42 ounces or over per linear yard of 1-inch width.

Table 2-1. Chains

Size (in)	Weight (lb per lin ft)	Common iron	Safe working load (lb)		
			High-grade iron	Soft steel	Special steel
1/4	0.8	512	563	619	1,240
3/8	1.7	1,350	1,490	1,650	3,200
1/2	2.5	2,250	2,480	2,630	5,250
5/8	4.3	3,470	3,810	4,230	7,600
3/4	5.8	5,070	5,580	6,000	10,500
7/8	8.0	7,000	7,700	8,250	14,330
1	10.7	9,300	10,230	10,600	18,200
1 1/8	12.5	9,871	10,858	11,944	21,500
1 1/4	16.0	12,186	13,304	14,634	26,300
1 3/8	18.3	14,717	16,188	17,807	32,051

Table 2-2. Cloth, duck, cotton, type III - Army duck

Weight (oz per yd)	Yarn ply		Yarns per in		Breaking strength (lb)	
	Warp	Fill	Warp	Fill	Warp	Fill
8.25	2	2	60	58	125	120
9.85	2	2	52	40	160	110
12.29	3	2	44	34	210	130
14.77	3	3	44	28	235	175
15.90	3	3	45	34	245	200
18.48	4	4	42	28	315	200

Table 2-3. Cloth, duck, nylon

Weight (oz per sq yd)	Yarns per in		Breaking strength (lb)		Elongation (%)		Tearing strength (lb)	
	Warp	Fill	Warp	Fill	Warp	Fill	Warp	Fill
20.5	62	60	1,100	1,100	30	30	135	135

Table 2-4. Cloth, duck, nylon, parachute packs

Type	Weight (oz per sq yd)	Breaking strength (lb)		Tearing strength (lb)	
		Warp	Fill	Warp	Fill
I	9.50	400	300	35	45
II	8.75	400	150	35	20
III	7.25	325	275	20	20

Table 2-5. Cloth, muslin, cotton

Type	Class	Weight (oz per sq yd)	Yarns per in		Breaking strength (lb)		Note
			Warp	Fill	Warp	Fill	
I	1	2.7	64	58	37	26	Classes:
	2	2.4	66	52	34	20	1 – Unbleached
	3	2.5	68	56	36	22	2 – Bleached or dyed
II	1	3.1	68	70	42	34	
	2	2.7	70	64	38	28	3 – Bleached or dyed pre-shrunk
	3	2.8	72	68	40	30	
III	1	3.4	78	76	46	39	
	2	2.9	80	70	45	32	
	3	3.0	83	74	44	34	
IV	1	2.4	38	36	37	20	
V	1	3.9	56	60	44	50	
VI	2	2.4	64	56	35	25	
VII	2	3.1	85	72	45	30	

Table 2-6. Cloth, muslin, cotton (parachute canopy)

Type	Weight (oz per sq yd)	Yarns per in		Breaking strength (lb)		Tearing strength (lb)		Air permeability (cu ft per sq ft)	
		Warp	Fill	Warp	Fill	Warp	Fill	Min	Max
II	3.7	54	56	48	42	3.0	2.5	170	230
III	3.8	56	58	50	50	3.0	2.5	130	190

Table 2-7. Cloth, nylon, parachute, cargo

Type	Weight (oz per sq yd)	Breaking strength (lb)	
		Warp	Fill
I	2.25	90	90
II	3.50	135	125

Table 2-8. Cloth, parachute, nylon, cargo, and deceleration

Type	Weight (oz per sq yd)	Thickness (in)	Breaking strength (lb)		Tearing strength (lb)	
			Warp	Fill	Warp	Fill
I	4.75	.020	200	200	15	15
II	7.00	.024	300	300	20	20
IIa	10.50	.025	500	500	75	75
III	14.00	.035	600	600	75	75

Table 2-9. Cloth, parachute, nylon

Type	Weight (oz per sq yd)	Thickness (in)	Breaking strength (lb)		Tearing strength (lb)		Note
			Warp	Fill	Warp	Fill	
I	1.1	.033	42	42	5	5	Types: I—Rip—stop weave II—Twill weave III—Rip—stop weave
II	1.6	.004	50	50	5	5	
III	1.6	.004	50	50	4	4	

Table 2-10. Cloth, sateen, cotton

Class	Weight (oz per sq yd)	Yarns per in		Breaking strength (lb)		Note
		Warp	Fill	Warp	Fill	
1	8.2	85	48	140	118	Classes: 1 – Dyed 2 – White
2	8.2	85	48	115	100	

Table 2-11. Cord, nylon

Type	Breaking strength (lb)	Elongation (%)	Weight (yd per lb)	Note
I	100	30	350	
IA	100	30	350	One red thread in sleeve
II	375	30	105	One black thread in sleeve
III	550	30	75	

Table 2-12. Cord, nylon, coreless

Type	Breaking strength (lb)	Length (ft per lb)
I	100	330
Ia	100	330
II	400	255
III	550	150
IV	1,000	120
V	1,500	90
VI	2,000	60
VII	2,500	45
VIII	3,000	36
IX	4,000	27
X	5,000	22
XI	300	480
XII	10,000	12
XIIa	10,000	12
XIII	50	2,700
XIV	100	1,200
XV	200	675
XVI	1,250	105
XVII	1,750	75
XVIII	2,250	51
XIX	3,500	30
XX	4,500	24
XXI	5,500	18
XXII	6,000	15

Table 2-13. Cord, elastic, exerciser and shock absorber for aeronautical use

Type	Diameter (in)	Load for 100% elongation (lb)	Breaking strength (lb)	Weight (lb per 100 ft)	Note
I	1/4	16-28	120	2.4	Types:
	3/8	90-150	300	5.5	I – Straight cord with double-braided cover (shock-absorber).
	1/2	175-250	400	9.0	
	5/8	250-350	500	14	
	3/4	400-650	1,000	22	
II	1/4	32-56			II – Endless ring (Bungee) with double-braided cover (shock-absorber)
	3/8	180-300			
	7/16	260-400			
	1/2	350-500			
	9/16	425-600			
	5/8	500-700			
	11/16	650-850			
	3/4	800-1,300			
	1 3/16	1,100-1,500			
III	3/16	6-10	45	1.3	III – Straight cord with single-braided cover (exerciser).
	5/16	8-15	75	3.1	

Table 2-14. Cord, rayon, without core, braided

Type	Length (ft per lb)	Breaking strength (lb)	Elongation (%)
I	126	400	14
II	60	1,000	12
III	39	1,500	

Table 2-15. Cord, cotton, general-purpose, type I

Size	Diameter (in)	Breaking strength (lb)	Number of strands	Length (ft per lb)	Notes
4	1/8	100	8	171	Classification Types:
5	5/32	160	8	85	I—General purpose cord
6	3/16	240	12	55	II—Sash cord
7	7/32	300	12	45	III—Venetian blind cord
8	1/4	370	12	37	IV—Special purpose cord
10	5/16	560	12	23	Classes:
12	3/8	720	12	17	1—Natural
16	1/2	1,250	18	10	2—Polished finish
					3—Water and mildew—resistant finish
					4—Polished and water—resistant finish

Table 2-16. Felt sheet (hair) and felt roll (hair)

Type	Thickness		Weight		Notes
	Nominal (in)	Limits (in)	Nominal (oz per yd)	Limits (oz per yd)	
I	1/8	.112–.137	19	16–22	Type I—Platen or needle loom process, without backing
I	3/16	.169–.205	27	23–31	
I	1/4	.225–.275	35	29–41	
I	1/2	.450–.550	56	50–62	
I	3/4	.675–.825	79	70–88	
I	1	.900–1.1	105	90–120	
I	1 1/4	1.125–1.375	130	112–148	
I	1 1/2	1.350–1.650	156	135–177	
I	1 3/4	1.575–1.925	180	156–204	
I	2	1.8–2.2	207	180–234	
II	1/8	.112–.137	19	16–22	Type II—Punches or needle loom process, with tobacco cloth center reinforcement
II	3/16	.169–.205	27	23–31	
II	1/4	.225–.275	35	29–41	
II	1/2	.450–.550	56	50–62	
II	3/4	.675–.825	79	70–88	

Table 2-16. Felt sheet (hair) and felt roll (hair) - Continued.

Type	Thickness		Weight		Notes
	Nominal (in)	Limits (in)	Nominal (oz per yd)	Limits (oz per yd)	
II	1	.900–1.1	105	90–120	
II	1 1/4	1.125–1.375	130	112–148	
II	1 1/2	1.350–1.650	156	135–177	
II	1 3/4	1.575–1.925	180	156–204	
II	2	1.8–2.2	207	180–234	
III	1/8	.112–.137	21	18–24	Type III—Punched or needle loom process, with tobacco cloth center reinforcement (breaking strength requirement)
III	3/16	.169–.205	29	25–33	
III	1/4	.225–.275	37	31–42	
III	1/2	.450–.550	58	52–64	
III	3/4	.675–.825	81	72–90	
III	1	.900–1.1	107	92–124	
III	1 1/4	1.125–1.375	132	114–150	
III	1 1/2	1.35–1.65	158	137–179	
III	1 3/4	1.575–1.925	182	158–206	
III	2	1.8–2.2	209	182–236	
IV	1/8	.112–.137	31	27–35	Type IV—Felted and fully processed: Class I—Untreated Class II—Neutralized
IV	3/16	.169–.205	46	40–52	
IV	1/4	.225–.275	62	54–70	
IV	5/16	.280–.312	77	67–87	
IV	3/8	.338–.412	103	81–125	
IV	1/2	.450–.550	124	108–140	
IV	3/4	.675–.825	206	162–210	
IV	1	.900–1.1	248	216–280	
V	3/16	.169–.205	32	29–35	Type V—Felted process, burlap core
V	1/4	.225–.275	40	36–44	
V	3/8	.338–.412	48	43–53	
V	1/2	.450–.550	64	57–71	

Table 2-17. Grommet, metallic

A - Type I, plain grommet with plain washer

Plain grommet							
Size	ID end of bbl	OD under head	Diameter of head	Height overall	Thickness of head	Tolerances (plus or minus)	Nominal thickness of basic metal
00	.176	.218	.425	.170	.035	.005	.009
0	.240	.290	.545	.210	.035	.005	.011
1	.286	.375	.687	.220	.035	.005	.0126
1-J	.298	.375	.680	.295	.032	.005	.0126
2	.362	.475	.815	.250	.035	.005	.0126
2-J	.394	.490	.840	.295	.035	.005	.016
3	.433	.545	.970	.345	.050	.005	.014
4	.486	.630	1.050	.420	.046	.005	.016
5	.594	.785	1.220	.375	.045	.0075	.016
6	.810	.885	1.750	.312	.080	.0075	.0201

Plain washer				
Diameter of hole	OD of washer	Height overall	Tolerances (plus or minus)	Nominal thickness of basic metal
.218	.460	.029	.005	.009
.286	.546	.030	.005	.010
.359	.700	.041	.005	.0126
.359	.700	.041	.005	.0126
.453	.835	.045	.005	.0126
.453	.835	.045	.005	.0126
.530	.955	.050	.005	.013
.585	1.062	.050	.005	.013
.740	1.205	.055	.0075	.0135
.875	1.828	.070	.0075	.0201

Table 2-17. Grommet, metallic - Continued

B - Type II, plain grommet with toothed washer

Plain grommet							
Size	ID end of bbl	OD under head	Diameter of head	Height overall	Thickness of head	Tolerances (plus or minus)	Nominal thickness of basic metal
00	.176	.218	.425	.170	.035	.005	.009
0	.240	.290	.545	.210	.035	.005	.011
1	.286	.375	.687	.220	.035	.005	.0126
1-J	.298	.375	.680	.295	.032	.005	.0126
2	.362	.475	.815	.250	.035	.005	.0126
2-J	.394	.490	.840	.295	.035	.005	.160
3	.433	.545	.970	.345	.500	.005	.014
4	.486	.630	1.050	.420	.046	.005	.016
5	.594	.785	1.220	.375	.045	.0075	.016
6	.810	.885	1.750	.312	.080	.0075	.0201

Toothed washer					
Diameter of hole	OD of washer	Height overall	Thickness of head	Tolerances (plus or minus)	Nominal thickness of basic metal
.290	.570	.125	.035	.005	.0115
.350	.680	.140	.040	.005	.014
.350	.680	.140	.040	.005	.014
.468	.840	.180	.040	.005	.0126
.468	.840	.180	.040	.005	.016
.545	.945	.180	.040	.005	.0126
.593	1.050	.250	.045	.005	.018
.720	1.190	.288	.050	.0075	.017

Table 2-17. Grommet, metallic - Continued

C - Type III, rolled rim grommet with spur washer

Rolled rim grommet								
Size	ID end of bbl	OD under head	Diameter of head	Height overall	Thickness of head	Tolerances (plus or minus)	Nominal thickness of basic metal	See Notes
0	.270	.375	.670	.235	.060	.005	.016	1
1	.380	.480	.790	.270	.065	.005	.016	1
2	.425	.532	.890	.325	.070	.005	.019	1
3	.430	.545	.970	.330	.075	.005	.020	2
4	.560	.695	1.120	.400	.080	.005	.020	3
5	.600	.800	1.285	.465	.085	.0075	.021	4
6	.735	.935	1.535	.510	.090	.0075	.0253	4
7	.883	1.080	1.725	.536	.090	.0075	.020	4
8	1.040	1.300	1.865	.555	.090	.0075	.0253	5

Notes:
1. Washers have one row of 6 teeth.
2. Washers have one row of 7 teeth.
3. Washers have one row of 8 teeth.
4. Washers have two rows of 9 teeth each.
5. Washers have two rows of 20 teeth each.

Spur washer					
Diameter of hole	OD of washer	Height overall	Thickness of head	Tolerances (plus or minus)	Nominal thickness of basic metal
.345	.645	.150	.060	.005	.016
.455	.790	.150	.065	.005	.016
.512	.890	.156	.070	.005	.020
.537	.970	.190	.075	.005	.020
.645	1.120	.205	.080	.005	.020
.777	1.270	.225	.085	.0075	.021
.875	1.505	.225	.090	.0075	.0253
1.062	1.725	.225	.090	.0075	.020
1.195	1.910	.240	.090	.0075	.020

Table 2-17. Grommet, metallic - Continued

D - Oblong grommet with flat washer

Oblong grommet							
Width of hole	Width under head	Width of head	Height overall	Length of hole	Length under head	Length overall	Corner radius
0.1875 +.000 -.002	0.221 ±.000 -.003	0.406 ±.005	0.235 ±.005	1.24 ±.000 -.002	1.284 ±.003	1.470 ±.005	0.03125 ±.003

Flat washer					
Nominal basic-metal thickness	Width of hole	Width of washer	Length of hole	Length overall	Nominal thickness of basic metal
0.013	0.25 ±.003	0.4375 ±.003	1.312 ±.003	1.50 ±.003	0.0201

E - Type V oblong grommet with raised washer

Type V oblong grommet								
Size	Width of hole	Width under head	Width of head	Height overall	Length of hole	Length under head	Length overall	Corner radius
1 (3/8 x 1 1/2)	0.290 +.000 -.002	0.395 ±.002	0.915 ±.005	0.360 ±.005	1.406 ±.000 -.002	1.515 ±.002	2.015 ±.005	0.03125 ±.003
2 (5/16 x 1)	.175 +.000 -.002	.249 ±.003	.665 ±.005	.245 ±.005	.830 ±.000 -.002	.910 ±.002	1.315 ±.005	.0468 ±.003

Raised washer							
Nominal thickness of basic metal	Width of hole	Width of washer	Height overall	Length of hole	Length overall	Corner radius	Nominal thickness of basic metal
0.028	0.420 ±.003	0.915 ±.003	0.125 ±.003	1.532 ±.003	2.010 ±.003	0.03215 ±.003	0.028 .003
.0201	+.275 -.003	+.625 -.003	+.100 -.003	+.950 -.003	+1.290 -.003	.0156 .003	.0201

Table 2-17. Grommet, metallic - Continued

F - Type VIII eyelet grommet with ring

Type VIII eyelet grommet			Ring			
Size	Weight per gross (approx) (oz*)	"A" diameter after insertion (in)	Size	Weight per gross (approx) (lb)	(oz)	"A" diameter (in)
6	30	0.750	6	3	7	1.000
8	36	.825	8	7	6	1.250
10	70	1.250	10	10	5	1.500
11	84	1.500	11	16	14	1.750
15	150	2.000	15	39	14	2.250

* Brass grommets only.

Table 2-18. Lumber

A - Minimum dressed sizes of boards (up to 2 inches thick)

Thickness (in)			Face widths (in)		
Minimum size dressed			Minimum size dressed		
Size ordered	Seasoned	Unseasoned	Size ordered	Seasoned	Unseasoned
1	3/4	25/32	2	1 1/2	1 9/16
1 1/4	1	1 1/32	3	2 9/16	2 5/8
1 1/2	1 1/4	1 9/32	4	3 9/16	3 5/8
			5	4 1/2	4 5/8
			6	5 1/2	5 5/8
			7	6 1/2	6 5/8
			8	7 1/2	7 5/8
			9	8 1/2	8 3/4
			10	9 1/2	9 3/4
			11	10 1/2	10 3/4
			12	11 1/2	11 3/4
			14	13 1/2	13 3/4
			16	15 1/2	15 3/4
2	1 1/2	1 9/16	2	1 1/2	1 9/16
			3	2 9/16	2 5/8
			4	3 9/16	3 5/8
			5	4 1/2	4 5/8
			6	5 1/2	5 5/8
			7	6 1/2	6 5/8
			8	7 1/2	7 5/8
			9	8 1/2	8 3/4

Table 2-18. Lumber - Continued

A - Minimum dressed sizes of boards (up to 2 inches thick)

Thickness (in)			Face widths (in)		
Minimum size dressed			Minimum size dressed		
Size ordered	Seasoned	Unseasoned	Size ordered	Seasoned	Unseasoned
2	1 1/2	1 9/16	10	9 1/2	9 3/4
			11	10 1/2	10 3/4
			12	11 1/2	11 3/4
			14	13 1/2	13 3/4
			16	15 1/2	15 3/4

B - Minimum dressed sizes of boards (over 2 inches thick) and timbers

Items	Thickness (in)		Face widths (in)	
	Size ordered	Minimum size dressed	Size ordered	Minimum size dressed
		Seasoned or unseasoned		Seasoned or unseasoned
Boards	2 1/2	2 1/8	3	2 5/8
	3	2 1/8	4	3 5/8
	3 1/2	3 1/8	6	5 1/2
	4	3 5/8	8	7 1/2
			10	9 1/2
			12	11 1/2
			14	13 1/2
			16	15 1/2
Timbers	5 and thicker	1/2 off	5 and thicker	1/2 off

Table 2-18. Lumber - Continued

C - Finished dressed sizes of seasoned worked lumber

Thickness (in)		Face widths (in)	
Minimum size dressed	Size ordered	Size ordered	Minimum size dressed
3/8	5/16	2	1 1/2
1/2	7/16	3	2 9/16
5/8	9/16	4	3 9/16
3/4	5/8	5	4 1/2
1	3/4	6	5 1/2
1 1/4	1	7	6 1/2
1 1/2	1 1/4	8	7 1/4
1 3/4	1 3/8	9	8 1/4
2	1 1/2	10	9 1/4
2 1/2	2	11	10 1/4
3	2 9/16	12	11 1/4
3 1/2	3 1/16	14	13 1/4
4	3 9/16	16	15 1/4

Table 2-19. Nails

A - Brads

Dash no	Length (in)	Diameter (in)	No per lb (approx)
– 1	3/8	.0348	9520
– 2	1/2	.0348	7060
– 3	5/8	.0348	5680
– 4	3/4	.0348	4800
– 5	7/8	.0348	4220
– 6	1	.054	1502
– 7	1	.0625	1120
– 8	1 1/4	.0625	940
– 9	1 1/2	.080	470
–10	1 3/4	.0625	672
–11	1 3/4	.080	400
–12	2	.080	350
–13	2 1/4	.080	320
–14	2 1/2	.080	290

Table 2-19. Nails - Continued

Dash no	Common designation	Length (in)	Diameter (in)	No per lb (approx)
B - Nails, casing				
–15	4d	1 1/2	.080	489
–16	6d	2	.099	244
–17	8d	2 1/2	.113	147
–18	10d	3	.128	96
–19	12d	3 1/4	.128	88
–20	16d	3 1/2	.135	74
C - Nails, finishing				
–21	3d	1 1/4	.067	880
–22	4d	1 1/2	.072	630
–23	5d	1 3/4	.072	535
–24	6d	2	.0915	288
–25	7d	2 1/4	.0915	254
–26	8d	2 1/2	.099	196
–27	9d	2 3/4	.099	178
–28	10d	3	.113	124
–29	12d	3 1/4	.113	113
–30	16d	3 1/2	.1205	93
–31	20d	4	.135	65
D - Nails, bright				
– 1	2d	1	.072	810
– 2	3d	1 1/4	.080	540
– 3	4d	1 1/2	.099	300
– 4	5d	1 3/4	.099	255
– 5	6d	2	.113	170
– 6	7d	2 1/4	.113	150
– 7	8d	2 1/2	.131	95
– 8	9d	2 3/4	.131	90
– 9	10d	3	.1483	65
–10	12d	3 1/4	.1483	60
–11	16d	3 1/2	.162	46
–12	20d	4	.192	28
–13	30d	4 1/2	.207	20
–14	40d	5	.2253	17
–15	50d	5 1/2	.2437	13
–16	60d	6	.2625	10

Table 2-19. Nails - Continued

E - Nails, zinc-coated				
Dash no	Common designation	Length (in)	Diameter (in)	No per lb (approx)
−17	2d	1	.072	789
−18	4d	1 1/2	.099	274
−19	6d	2	.113	155
−20	8d	2 1/2	.131	91
−21	10d	3	.1483	61
−22	12d	3 1/4	.1483	57
−23	16d	3 1/2	.162	44
−24	20d	4	.192	26
−25	30d	4 1/2	.207	20
−26	40d	5	.2253	17
−27	50d	5 1/2	.2437	13
−28	60d	6	.2625	10

F - Nails, copper			
Dash no	Length (in)	Diameter (in)	No per lb (approx)
−29	1	.072	704
−30	1 1/2	.109	208
−31	2	.120	130
−32	2 1/2	.134	86
−33	3	.148	56
−34	3 1/2	.165	40
−35	4	.203	23
−36	4 1/2	.220	18
−37	5	.238	14

Table 2-20. Parachute, cargo

Type	Weight (lb)	Maximum load limit (lb)
T-7 Converted	25	500
G-14	37	500
G-13	45	500
G-12	128	2,200
G-11	250	3,500

Table 2-21. Parachute, cargo extraction

Size (ft)	Weight (lb)	
	Canopy	Packed
15	8.0	27.0
22	27.5	61.0
28	36.5	75.0

Table 2-22. Platform, cargo airdrop, modular type II

Length (ft)	Width (in)	Weight (lb)	Platform surface (sq ft)	Minimum rigged weight (lb)
8	108	300	72	2,520
12	108	450	108	3,780
16	108	600	144	5,040
20	108	750	180	6,300
24	108	900	216	7,500

Table 2-23. Plywood, flat panel

Thickness (in)	Width (in)	Length (in)	Note
1/4	48	96	Types: Exterior: Type I—The glue line is water-proof and unaffected by micro-organisms. Interior: Type II—The glue line will with-stand occasional wetting and drying. Type III—The glue is suitable only for use where the plywood will not be subjected to water, damp-ness, or high humidity. Classes: A—Hardwood B—Douglas fir C—Pine D—Western softwood E—Southern pine
3/8	48	96	
1/2	48	96	
5/8	48	96	
3/4	48	96	
1	48	96	

Table 2-24. Ribbon, nylon, parachute

Class	Type	Width (in)	Weight (yd per lb)	Breaking strength (lb)
A Extra lightweight	I	.250	1300	13
	II	.375	875	18
	III	.625	440	43
	IV	1.250	260	65
	V	2.000	165	96
B Lightweight	I	.250	970	22
	II	.375	650	33
	III	.625	360	70
	IV	1.250	210	120
	V	2.000	120	200
	VI	5.000	50	100
C Mediumweight	I	.250	770	39
	II	.375	520	58
	III	.625	335	90
	IV	1.250	160	185
	V	2.000	100	300
D Heavyweight	I	1.250	80	280
	II	2.000	45	460
E Extra heavyweight	I	1.250	50	650
	II	2.000	30	1,000

Table 2-25. Rope, manila and sisal

Nominal diameter (in)	Circum-ference (in)	Weight per 100 ft (lb)	No 1 Manila		Sisal	
			Breaking strength (lb)	Safe load (lb)	Breaking strength (lb)	Safe load (lb)
1/4	3/4	1.71	550	150	440	120
3/8	1 1/8	3.45	1,275	325	1,020	260
1/2	1 1/2	7.36	2,650	660	2,120	520
5/8	2	13.1	4,400	1,100	3,520	880
3/4	2 1/4	16.4	5,400	1,350	4,320	1,080
7/8	2 3/4	22.0	7,700	1,920	6,160	1,540
1	3	26.5	9,000	2,250	7,200	1,800
1 1/8	3 1/2	35.2	12,000	3,000	9,600	2,400
1 1/4	3 3/4	40.8	13,500	3,380	10,800	2,700
1 1/2	4 1/2	58.8	18,500	4,620	14,800	3,700
1 3/4	5 1/2	87.7	26,500	6,625	21,200	5,300
2	6	105.0	31,000	7,750	24,800	6,200
2 1/2	7 1/2	163.0	46,500	11,620	37,200	9,300
3	9	237.0	64,000	16,000	51,200	12,800

Table 2-26. Sling, cargo, airdrop

No per suspension point	No of loops per sling	Safe load (lb)
1	2	0 to 9,000
1	3	9,001 to 13,500
1	4	25,001 to 35,000
2	2	13,501 to 18,000
2	3	18,001 to 25,000

Table 2-27. Sling, endless

Fiber rope				
Type	Rope circum-ference (in)	Inside perimeter (ft)	Safe working load (lb)	Breaking strength (lb)
I	3	24	1,800	9,000
II	3 1/4	40	2,100	10,500
III	3 1/2	80	2,400	12,000
IV	4	80	3,000	15,000

	Wire rope, grommet-type			
Diameter (in)	Safe working load (lb)		Proof load vertical hitch (lb)	Breaking strength (lb)
	Vertical hitch	Choker hitch		
3/4	15,200	11,400	30,400	76,000

Table 2-28. Tape, textile, cotton, general-purpose

Type	Width (in)	Warp strength (lb)
I	1/4	25
I	3/8	30
I	7/16	35
I	1/2	42
I	5/8	50
I	11/16	58
I	3/4	65
I	13/16	72
I	7/8	80
I	1	85
I	1 1/16	90
I	1 1/8	95
I	1 1/4	115
I	1 1/2	130
II	3/16	22
II	1/2	50
II	5/8	60
III	3/16	14
III	1/4	18
III	3/8	24
III	1/2	35
III	9/16	36
III	1	65

Table 2-29. Tape, textile, nylon

Type	Width (in)	Thickness (in)	Weight (oz per lin yd)	Breaking Strength (lb)	Elongation (%)	Notes
Parachute Construction						One black thread in center Use: Type I—Skirt bands Type II—Reinforcing bands
I	1	.025–.045	.40	525	16	
II	1	.010–.030	.145	300	14	
Multiple tubular	1 5/16	.020	.40	500	20	

Table 2-30. Tape and webbing, textile, rayon

Type	Width (in)	Length (lin yd per lb)	Breaking strength (lb)	Notes
I	9/16	200	50	When specified, all rayon tape and webbing will contain one red thread in center.
I	1 1/8	100	100	
I	1 1/4	80	140	
Ia	3/8	100	160	Types:
Ia	9/16	40	500	I - Flat-weave tape
Ia	1	32	500	Ia - Flat-weave webbing
Ia	1 5/8	15	750	II - Tubular-weave webbing
II	1/8	125	150	
II	3/16	100	200	
II	1/2	40	500	
II	9/16	40	500	
II	5/8	23	900	

Table 2-31. Tape, textile and webbing, textile, reinforcing, nylon

Type	Width (in)	Thickness (in)	Weight (oz per yd)	Breaking strength (lb)	Notes
II	1	.025-.035	.40	900	Types: II—Tape, herringbone twill weave
	1 1/2	.025-.035	.60	1,300	
	2	.025-.035	.80	1,700	
III	3/8	.015-.025	.12	200	III—Tape, plain weave
	1/2	.015-.025	.15	250	
	3/4	.015-.025	.20	400	
	1	.015-.025	.30	525	
	1 1/2	.015-.025	.40	900	
IV	1/2	.030-.040	.35	550	IV—Webbing, plain weave
	5/8	.030-.040	.40	625	
	1	.030-.040	.50	1,000	
	1 1/8	.030-.040	.60	1,100	
	1 1/2	.030-.040	.75	1,500	
V	9/16	.020-.030	.20	500	V—Tape, herringbone twill weave
VI	3/4	.020-.030	.20	425	VI—Tape, herringbone twill weave

Table 2-32. Tape and webbing, textile, cotton reinforcing, woven

Type	Width (in)	Weight (oz per lin yd)	Breaking strength (lb)	Notes
I	1/4	.11	80	Types:
	3/8	.15	120	I—Plain
	1/2	.22	150	
	5/8	.28	170	
	3/4	.33	200	
	1	.47	250	
II	1/2	.15	110	II—Double herringbone
	3/4	.22	165	
	1	.29	220	
	1 1/4	.36	275	
	1 1/2	.43	330	
	1 3/4	.50	375	
	2	.57	425	
III	1/2	.10	45	III—Twill
	5/8	.12	55	
	3/4	.14	75	
V	1	.65	350	V—Plain (traverse cord)
	2	1.30	650	
VI	5/8	.23	80	VI—Nonelastic
	1	.98	375	

Table 2-33. Thread, nylon

A - Type I - Twisted, soft, multiple cord				
Size	Ply	Length (yd per lb)	Breaking strength (lb)	Notes
0000	2	45,200	.85	Classes: 1—Low elongation 2—Normal elongation
000	3	29,500	1.30	
00	2	25,800	1.85	
A	3	16,900	2.75	
AA	3	12,600	4.5	
B	2 or 3	8,200	5.50	
E	3	5,600	8.50	
F	4	3,750	11.0	
FF	3	2,725	16.0	
FFF	3	2,900	17.0	
3	3	1,800	24.0	
4	3	1,300	32.0	
5	3	1,000	40.0	
6	3	850	50.0	
7	3	725	60.0	
8	3	625	68.0	
9	3	550	80.0	
10	3	450	90.0	
B - Type II - Twisted, bonded, multiple cord				
0000	2	40,000	.85	
000	3	26,000	1.30	
00	2	23,000	1.85	
A	3	15,000	2.75	
AA	3	11,800	4.5	
B	2 or 3	7,375	5.50	
E	3	5,000	8.50	
F	4	3,350	11.0	
FF	3	2,450	16.0	
3	3	1,600	24.0	
4	3	1,200	32.0	
5	3	950	40.0	
6	3	775	50.0	
7	3	650	60.0	
8	3	575	68.0	
9	3	500	80.0	
10	3	450	90.0	

Table 2-34. Thread, cotton

A - Machine thread (types 1A1, 1A2, and 1A3)					
Ply	Ticket no	Yarn size	Minimum length (yd per lb)	Min breaking strength (lb)	Notes
2	60	30/2	12,145	1.4	Finish:
2	70	34/2	14,065	1.2	1A—Soft finish
2	80	40/2	16,400	1.0	
2	90	44/2	17,945	0.9	
2	*140	58/2	23,000	1.1	Types:
3	20	20/3	5,040	4.0	1A1—Unbleached
3	24	22/3	5,720	3.6	1A2—White and tints
3	30	28/3	7,275	3.0	1A3—Black and colors
3	36	32/3	8,535	2.7	
3	40	34/3	9,405	2.3	
3	50	40/3	10,800	2.1	
3	60	44/3	12,125	1.8	
3	70	52/3	14,065	1.5	
3	80	60/3	16,400	1.3	
3	70S	58/3	15,700	1.6	
3	80S	66/3	17,900	1.4	S—twist
3	90	76/3	21,000	1.1	S—twist
4	12	14/4	2,810	8.0	
4	16	20/4	3,880	6.0	
4	20	26/4	5,040	4.7	
4	24	28/4	5,720	4.1	
4	30	36/4	7,275	3.2	
4	36	42/4	8,535	2.7	
4	40	46/4	9,405	2.5	
4	50	58/4	11,835	2.0	
6	20	36/2/3	4,850	4.0	
6	24	44/2/3	5,915	3.5	
6	30	52/2/3	7,225	3.0	
6	36	60/2/3	8,340	2.6	
6	40	70/2/3	9,600	2.3	
6	50	86/2/3	12,025	1.9	
6	60	96/2/3	13,285	1.7	
6	70	104/2/3	14,450	1.5	
6	80	115/2/3	16,005	1.4	

*A special high-grade thread which must be made from fine, strong cotton.

Table 2-34. Thread, cotton - Continued

B - Machine thread (types 1B1, 1B2, and 1B3)					
Ply	Ticket no	Yarn size	Minimum length (yd per lb)	Min breaking strength (lb)	Notes
2	60	28/2	11,520	1.5	Finish: 1B—Glazed finish Types: 1B1—Unbleached 1B2—White and tints 1B3—Black and colors
2	70	32/2	13,360	1.3	
2	80	38/2	15,580	1.1	
2	90	42/2	17,050	1.0	
3	20	18/3	4,790	4.3	
3	24	20/3	5,435	3.9	
3	30	26/3	6,910	3.2	
3	36	32/3	8.110	2.8	
3	40	34/3	8,935	2.4	
3	50	38/3	10,260	2.2	
3	60	42/3	11,520	2.0	
3	70	50/3	13,360	1.6	
3	80	58/3	15,580	1.4	
4	12	14/4	2,670	8.8	
4	16	20/4	3,685	6.4	
4	20	24/4	4,790	5.1	
4	24	28/4	5,435	4.4	
4	30	34/4	6,910	3.5	
4	36	40/4	8,110	2.9	
4	40	44/4	8,935	2.7	
4	50	56/4	11,245	2.1	
C - Machine thread (types 1C1 and 1C2)					
2	20	20/2	8,000	2.6	Finish: 1C—Mercerized finish Types: 1C1—White and tints 1C2—Black and colors
2	24	24/2	9,600	2.2	
2	30	30/2	11,000	1.65	
2	36	36/2	14,400	1.5	
2	40	40/2	16,000	1.3	
2	50	48/2	19,200	1.2	
2	60	60/2	24,400	0.9	
3	C	22/3	6,010	4.2	
3	B	28/3	7,760	3.4	
3	A	34/3	9,215	2.9	
3	0	38/3	10,280	2.6	
3	00	44/3	12,220	2.1	
3	000	56/3	15,520	1.7	
3	0000	76/3	21,340	1.2	

Table 2-34. Thread, cotton - continued

D - Basting thread (types IIA1 and IIA2)					
Ply	Ticket no	Yarn size	Minimum length (yd per lb)	Min breaking strength (lb)	Notes
3	30	28/3	7,530	25	Finish: IIA—Glazed finish Types:- IIA1 - White IIA2 - Black
E - Heavy thread (type IIIA - soft finish)					
3	8/3	...	2,150	9	III—Heavy thread
3	10/3	...	2,660	8	
4	8/4	...	1,600	13	
4	9/4	...	1,830	12	
4	10/4	...	1,990	11	IIIA—Glazed finish
5	10/5	...	1,590	14	
6	10/6	...	1,330	17	
F—Heavy thread (type IIIB, glazed finish)					
3	8/3	...	1,935	10	
3	10/3	...	2,395	9	
4	8/4	...	1,440	14	
4	10/4	...	1,790	12	
5	10/5	...	1,430	15	
6	10/6	...	1.195	18	

Table 2-34. Thread, cotton - Continued

Ply	Ticket no	Yarn size	Minimum length (yd per lb)	Min breaking strength (lb)
G—Shoe thread (type IVA, soft finish)**				
4	8/4	...	1,600	15
5	8/5	...	1,275	22
6	8/6	...	1,060	27
7	8/7	...	910	30
8	8/8	...	800	34
9	8/9	...	705	39
10	8/10	...	640	44
11	8/11	...	580	48
12	8/12	...	530	54
H—Shoe thread (type IVB, glazed finish)**				
4	8/4	...	1,520	16
5	8/5	...	1,210	23
6	8/6	...	1,000	29
7	8/7	...	865	32
8	8/8	...	760	36
9	8/9	...	670	41
10	8/10	...	605	46
11	8/11	...	550	51
12	8/12	...	505	57

**It is recommended that applicable threads covered in these tables be used as substitutes for threads that were covered by MIL-T-5660, thread, cotton, high tenacity. On the basis of practical equivalency, the following substitutes are recommended:

For MIL—T—5660	Use V-T-276
Style A, ticket no	
3	Type IV, ticket no 8/4
4	8/5
5	8/7
6	8/9
7	8/10
8	8/11
9	8/12
Type I (soft)	Finish A (soft)
Type II (polished)	Finish B (glazed)

Table 2-35. Webbing, textile, woven nylon

Type	Width (in)	Thickness (in)	Weight (oz per lin yd)	Breaking strength (lb)	Notes
I	9/16	.025-.04	0.28	500	
Ia	3/4	.025-.035	0.32	600	
II	1	.025-.040	0.42	600	
III	1 1/4	.025-.040	0.52	800	
IV	3	.025-.040	1.20	1,800	Identifying threads:
VI	1 23/32	.030-.050	1.15	2,500	Two red threads in center
VII	1 23/32	.060-.100	2.35	5,500	Two yellow threads at each edge
VIII	1 23/32	.040-.070	1.60	3,600	Two black threads in center
VIIIa	3	.040-.070	2.80	6,300	
VIIIb	2	.040-.070	1.80	4,500	
VIIIc	2 1/4	.040-.070	2.10	5,300	
IX	3	.065-.100	4.00	9,000	
X	1 23/32	.105-.140	3.70	8,700	
XII	1 23/32	.025-.040	0.85	1,200	One red thread at each edge
XIII	1 23/32	.080-.120	2.90	6,500	Two black threads at each edge
XIV	1/12	.070-.100	0.80	1,200	
XV	2	.035-.050	1.25	1,500	
XVI	1 23/32	.045-.080	2.00	4,500	
XVII	1	.045-.070	1.15	2,500	
XVIII	1	.100-.160	2.05	6,000	
XIX	1 3/4	.100-.130	4.10	10,000	Two green threads in center
XX	1	.180-.220	3.25	9,000	
XXI	1 1/4	.065-.085	1.70	3,600	
XXII	1 23/32	.090-.120	3.50	9,500	Two black threads at each edge and in center
XXIII	1 1/8	.200-.300	3.70	12,000	
XXIV	1 15/16	.055-.075	2.25	5,000	
XXV	1	.080-.125	1.50	4,500	
XXVI	1 3/4	.150-.180	4.90	15,000	Two yellow threads in center
XXVII	1 23/32	.085-.110	2.90	6,500	One black thread at each edge
XXVIII	2 1/4	.080-.110	3.80	8,700	

Table 2-36. Webbing, textile, nylon, tubular

Width (in)	Thickness (in)	Weight (oz per yd)	Breaking strength (lb)	Notes
				Identifying threads:
1/2	0.090	0.50	1,000	One black thread in center (dyed)
9/16	0.090	0.60	1,500	Three black threads - one each edge and in center (dyed)
5/8	0.100	0.75	2,250	Two black threads in center (dyed)
3/4	0.120	1.05	2,300	One black thread in center (dyed)
7/8	0.120	1.00	3,100	None
1	0.120	1.70	4,000	One black thread in center (dyed)

Table 2-37. Webbing, textile, cotton warp

Type	Width (in)	Thickness (in)	Weight (oz per yd)	Breaking strength (lb)	Notes
I	9/16	.040-.050	0.40	350	Classes:
II	1	.040-.050	0.75	575	1A—Undyed and not fungus proofed
III	1 1/4	.040-.050	0.90	750	1B—Undyed and fungus proofed
IV	3	.050-.100	2.50	1,900	2A—Dyed and not fungus proofed
V	5	.050-.100	4.30	3,100	2B—Dyed and fungus proofed
VI	1 3/4	.070-.090	2.10	1,800	3 —Resin dyed and fungus proofed during dyeing
					Identifying threads:
VII	1 3/4	.140-.170	3.00	2,600	Two black threads at each edge
VIII	1 3/4	.075-.095	3.00	2,900	Two black threads in center
IX	3	.090-.115	4.65	4,500	
X	1 3/4	.130-.150	3.50	5,000	
XII	1 3/4	.040-.050	1.25	1,000	
XIII	1 3/4	.100-.130	3.40	3,400	Two red threads in center
XV	1 3/4	.130-.150	3.50	4,500	Two red threads at each edge
XVI	1 3/4	.095-.115	2.60	2,700	Two yellow threads in center
XVII	1	.075-.095	1.25	1,000	
XVIII	2 1/2	.050-.060	1.40	1,250	
XIX	2	.13-.01	3.68	2,500	

Table 2-38. Webbing, textile, elastic, cotton

Class	Width (in)	Thickness (in)	Weight (oz per lin yd)	Load range to produce 50% elongation (lb)
1	3/8	.016-.046	0.28	1.15-3.25
	1/2	.016-.046	0.38	1.35-3.75
	3/4	.016-.046	0.53	1.80-5.00
	7/8	.016-.046	0.55	0.90-4.37
	1	.016-.046	0.73	3.00-5.50
	1 1/2	.016-.046	1.00	5.00-7.00
	2	.031-.061	1.60	6.00-11.00
	2 1/2	.031-.061	2.00	8.00-12.50
2	1 1/2	.094-.156	2.30	7.20-17.50
3*	1 1/2	.094-.156	2.35	15.30-31.25

*Used for parachute packs and ripcord grip pockets.

Table 2-39. Webbing, textile, cotton, general-purpose

A—Type II, medium—weight webbing (hard texture)			
Width (in)	Weight (oz per lin yd)	Breaking strength (lb)	Notes
3/8	0.20	100	Classes:
1/2	0.32	160	1—Natural
5/8	0.40	200	1a—Natural, water—repellent, mildew—resistant, 2, 2′ methylenebis (4—chlorophenol)
3/4	0.48	235	1b—Natural, water—repellent, mildew—resistant, (copper 8—quinolinolate)
1	0.65	315	
1 1/4	0.81	385	
1 1/2	0.97	460	
2	1.30	585	2—Bleached
2 3/4	1.78	760	2a—Bleached, water—repellent, mildew—resistant, 2, 2′ methylenebis (4—chlorophenol)
3	1.95	810	3—Dyed
3 3/4	2.43		4—Dyed, water—repellent, mildew—resistant, (copper 8—quinolinolate)
5	3.25		7—Dyed, water—repellent, mildew—resistant, 2, 2′ methylenebis (4—chlorophenol)
5 5/8	3.65		8—Dyed, water—repellent

Table 2-39. Webbing, textile, cotton, general-purpose - Continued

B—Type IIa, medium—weight webbing (soft texture)		
Width (in)	Weight (oz per lin yd)	Breaking strength (lb)
3/8	0.25	130
1/2	0.33	160
5/8	0.41	195
3/4	0.49	230
1	0.65	300
1 1/4	0.81	370
1 1/2	0.97	440
2	1.30	580
2 1/4	1.47	645
C—Type IIb, medium heavyweight webbing		
5/8	0.60	310
3/4	0.72	365
1	0.96	475
1 1/4	1.20	590
1 1/2	1.44	700
2	1.92	925
2 1/4	2.25	1,050
3	2.88	1.375
D—Type III, heavyweight webbing		
5/8	1.00	380
3/4	1.20	460
1	1.33	550
1 1/4	1.50	650
1 1/4	2.00	720
1 1/2	2.40	860
2	2.65	1,100
2 1/2	4.00	1,360
3	4.80	1,560

Table 2-40. Wire strand (6 x 19)

Diameter (in)	Weight (lb per 100 ft)	Breaking strength (tn)		
		Mild plow steel	Plow steel	Improved plow steel
1/4	10	2.07	2.39	2.74
3/8	23	5.0	5.5	6.3
1/2	40	8.5	9.4	10.8
5/8	63	13.1	14.4	16.6
3/4	90	18.7	20.6	23.7
7/8	123	25.4	28.0	32.2
1	160	33.0	36.5	42.0
1 1/8	203	41.5	46.0	53.0
1 1/4	250	51.0	56.5	65.0
1 1/2	360	72.5	80.5	92.5

Table 2-41. Wire strand, steel (corrosion resistant), preformed (aircraft applications)

Cable type	Nominal diameter (in)	Breaking strength (lb)	Weight (lb per 100 ft)	Notes
I	1/32	150	0.25	Types: I—Nonflexible 1x7, with wire center II—Nonflexible 1x19, with wire center
	3/64	375	0.55	
II	1/16	500	0.85	
	5/64	800	1.40	
	3/32	1,200	2.00	
	7/64	1,600	2.70	
	1/8	2,100	3.50	
	5/32	3,300	5.50	
	3/16	4,700	7.70	
	7/32	6,300	10.20	
	1/4	8,200	13.50	
	5/16	12,500	21.00	

Table 2-42. Miscellaneous hardware and equipment

Item	Breaking Strength (lb)
Adapter, parachute harness, quick-fit	2,500
Adapter, parachute harness, reversible, quick-fit	2,500
Clevis, riser, airdrop, type III	2,000
Clevis, suspension, airdrop, type I:	
1-inch diameter (large suspension clevis)	40,000
3/4-inch diameter (cargo suspension clevis)	20,000
5/8-inch diameter (small suspension clevis)	20,000
Clevis, tiedown, airdrop, type II:	
5/8-inch diameter	15,000
1/2-inch diameter	7,000
Container kits, airdrop:	
A-7A, Sling	500
A-10, Net	300
A-21, Bag	500
A-22, Bag	2,200
Link assembly, type IV	40,000
Link, parachute, connector, L-bar type	3,000
Release, cargo parachute, 5,000-pound-capacity	5,000
Ring, parachute harness "D"	5,000
Ring, parachute harness "V"	2,500
Ring, parachute harness, quick-fit, "V" type	2,500
Sling, endless, nylon webbing:	
Type I, 10-inch (five-ply)	10,000
Type II, 4-foot (single-ply)	2,500
Type III, 8-foot (single-ply)	2,500
Snap, parachute harness, ejector	2,500
Snap, parachute harness, quick-fit, ejector	2,500
Strapping, steel, 5/8—in wide, 0.02—in thick (Safe load per double thickness: 250 lb)	1,000
Tiedown, cargo, aircraft:	
Type CGU-1B	5,000
Type MB-1 or CGU-4/E	10,000
Type MB-2 or CGU-3/E	25,000
Tiedown, cargo, aircraft, nylon web net:	
Type MA-2 (15' x 15')	10,000
Type MA-3 (20' x 15')	10,000