Designation: ~~F1667 – 15~~ F1667 – 17

Standard Specification for Driven Fasteners: Nails, Spikes, and Staples[1]

This standard is issued under the fixed designation F1667; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.
The Commercial and Government Entity (Cage) Code for ASTM: 81346.

1. Scope*

1.1 This specification covers nails, spikes, staples, and other driven fasteners, as listed in Table 1.

NOTE 1—Fastener ductility information is presented in Table 2 and dimensional information in Tables 3–65.

1.2 Fasteners described in this specification are driven by hand tool, power tool, or mechanical device in single or multiple strikes and are positioned by hand, tool, or machine.

1.3 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 Fasteners in this specification are sold in bulk (loose) form and are collated for loading into the magazine of an application tool. Other than as covered in Section 9, Workmanship, cohering materials (including, but not limited to, plastic, adhesive bond, paper tape, plastic strip, plastic carrier, wire, etc.) and relative orientation of collated fasteners are not within the scope of this standard.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

A153/A153M Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
~~A510M~~A510/A510M Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon ~~Steel (Metric)~~Steel, and Alloy Steel ~~(Withdrawn 2011)~~
A641/A641M Specification for Zinc–Coated (Galvanized) Carbon Steel Wire
B695 Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel
C514 Specification for Nails for the Application of Gypsum Board[3]
F547 Terminology of Nails for Use with Wood and Wood-Base Materials
F592 Terminology of Collated and Cohered Fasteners and Their Application Tools (Withdrawn 2017)[4]
F680 Test Methods for Nails
F1575 Test Method for Determining Bending Yield Moment of Nails

3. Terminology

3.1 *Definitions*—The definitions used in this specification are those of common commercial acceptance and usage and also appear in Terminologies F547 and F592.

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[1] This specification is under the jurisdiction of ASTM Committee F16 on Fasteners and is the direct responsibility of Subcommittee F16.05 on Driven and Other Fasteners.
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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Additional material and dimensional tolerance for nails used in Gypsumboard are addressed in C514.

[4] The last approved version of this historical standard is referenced on www.astm.org.

***A Summary of Changes section appears at the end of this standard**

TABLE 1 Classification and Identification Index

Type	Style		Style Identification	Table
~~I—Nails (NL)~~	~~1.~~	~~Brads~~	~~BR~~	~~3~~
	~~2.~~	~~Barrel~~	~~BL~~	~~4~~
	~~3.~~	~~Boat~~	~~BTH/BTL~~	~~5~~
	~~4.~~	~~Box A~~	~~BXA~~	~~6~~
		~~Box B~~	~~BXB~~	~~7~~
	~~5.~~	~~Broom~~	~~BM~~	~~8~~
	~~6.~~	~~Casing~~	~~CN~~	~~9~~
	~~7.~~	~~Cooler~~	~~CL~~	~~10~~
	~~8.~~	~~Sinker~~	~~SK~~	~~11~~
	~~9.~~	~~Corker~~	~~CK~~	~~12~~
	~~10.~~	~~Common~~	~~CMA~~	~~13~~
		~~Common~~	~~CMC~~	~~14~~
		~~Common~~	~~CMS~~	~~15~~
		~~Common~~	~~CMM~~	~~16~~
	~~11.~~	~~Concrete~~	~~CTS/CTM~~	~~17~~
	~~12.~~	~~Double-headed~~	~~DH~~	~~18~~
	~~13.~~	~~Fine~~	~~FN~~	~~19~~
	~~14.~~	~~Finishing~~	~~FH~~	~~20~~
	~~15.~~	~~Flooring~~	~~FL~~	~~21~~
	~~16.~~	~~Lath~~	~~LHF~~	~~22~~
		~~Lath~~	~~LHH~~	~~23~~
	~~17.~~	~~Masonry~~	~~MR/MRH~~	~~24~~
	~~18.~~	~~Pallet~~	~~PL~~	~~25~~
	~~19.~~	~~Gypsum wallboard~~	~~GWS~~	~~26~~
		~~Gypsum wallboard~~	~~GWM~~	~~27~~
	~~20.~~	~~Roofing~~	~~RFA~~	~~28~~
		~~Roofing~~	~~RFS~~	~~29~~
		~~Roofing~~	~~RFC~~	~~30~~
		~~Roofing~~	~~RFL~~	~~31~~
		~~Roofing~~	~~RFR~~	~~32~~
		~~Roofing~~	~~RFD~~	~~33~~
		~~Roofing~~	~~RFNS/RFND~~	~~34~~
	~~21.~~	~~Shingle~~	~~SHAD/SHAS~~	~~35~~
		~~Shingle~~	~~SHSS/SHNSB~~	~~36~~
	~~22.~~	~~Siding~~	~~SDF/SDC/SDK~~	~~37~~
	~~23.~~	~~Slating~~	~~SLA/SLC/SLS~~	~~38~~
	~~24.~~	~~Rubber heel~~	~~RH~~	~~39~~
	~~25.~~	~~Underlayment~~	~~UL~~	~~40~~
	~~26.~~	~~Square-barbed~~	~~SB~~	~~41~~
	~~27.~~	~~Masonry drive~~	~~MD~~	~~42~~
	~~28.~~	~~Escutcheon~~	~~ES~~	~~43~~
	~~29.~~	~~Glulam rivet~~	~~GR~~	~~44~~
	~~30.~~	~~Post frame~~	~~PF~~	~~45~~
	~~31.~~	~~Roof Sheathing Ring Shank~~	~~RSRS~~	~~46~~
~~II—Cut nails (CN)~~	~~1.~~	~~Common~~	~~CM~~	~~47~~
	~~2.~~	~~Basket~~	~~BK~~	~~48~~
	~~3.~~	~~Clout~~	~~CL~~	~~49~~
	~~4.~~	~~Trunk~~	~~TR~~	~~50~~
	~~5.~~	~~Cobblers~~	~~CB~~	~~51~~
	~~6.~~	~~Extra-iron clinching~~	~~EC~~	~~52~~
	~~7.~~	~~Hob~~	~~HB~~	~~53~~
~~III—Spikes (SP)~~	~~1.~~	~~Common~~	~~CM~~	~~54~~
	~~2.~~	~~Gutter~~	~~GRF/GRO~~	~~55~~
	~~3.~~	~~Round~~	~~RDC/RDF~~	~~56~~
	~~4.~~	~~Barge and boat~~	~~BB~~	~~57~~
~~IV—Staples (ST)~~	~~1.~~	~~Fence~~	~~FN~~	~~58~~
	~~2.~~	~~Poultry netting~~	~~PN~~	~~59~~
	~~3.~~	~~Flat top crown~~	~~FC~~	~~60~~
		~~Flat top crown~~	~~FCC~~	~~61~~
	~~4.~~	~~Round or V crown~~	~~RC~~	~~62~~
	~~5.~~	~~Preformed~~	~~PC~~	~~63~~
	~~6.~~	~~Electrical~~	~~RE~~	~~64~~
	~~7.~~	~~Preformed hoop~~	~~PH~~	~~65~~
	~~8.~~	~~Cap~~	~~STC~~	~~66~~

TABLE 1 Classification and Identification Index

Type	Style		Style Identification	Table
I—Nails (NL)	1.	Brads	BR	3
	2.	Barrel	BL	4
	3.	Box A	BXA	5
		Box B	BXB	6
	4.	Broom	BM	7
	5.	Casing	CN	8
	6.	Cooler	CL	9
	7.	Sinker	SK	10
	8.	Corker	CK	11
	9.	Aluminum Common	CMA	12
		Copper Common	CMC	13
		Steel Common	CMS	14
		Power-tool Driven Common	CMP	15
	10.	Concrete	CTS/CTM	16
	11.	Double-headed (Duplex)	DH	17
	12.	Finish	FH	18
	13.	Flooring	FL	19
	14.	Lath	LHF	20
		Lath	LHH	21
	15.	Masonry	MR/MRH	22
	16.	Pallet	PL	23
	17.	Gypsum wallboard	GWS	24
		Gypsum wallboard	GWM	25
	18.	Aluminum Roofing	RFA	26
		Steel Roofing	RFS	27
		Copper-Clad Roofing	RFC	28
		Umbrella Head Roofing	RFL	29
		Steel Reinforced Roofing	RFR	30
		Cap Nail Hand Driven Roofing	MRH/PRH	31
		Cap Nail Power-Tool Driven Roofing	MRP/PRP	32
		Washered Aluminum Roofing	RFNS/RFND	33
		Washered Steel Roofing	RFE	34
	19.	Shingle	SHAD/SHAS	35
		Steel Shingle	SHSS/SHSR	36
	20	Siding	SDF/SDC/SDK	37
	21.	Slating	SLA/SLC/SLS	38
	22.	Rubber heel	RH	39
	23.	Underlayment	UL	40
	24.	Square-barbed	SB	41
	25.	Masonry drive	MD	42
	26.	Escutcheon	ES	43
	27.	Glulam rivet	GR	44
	28.	Post frame Ring Shank	PFRS	45
		Roof Sheathing Ring Shank	RSRS	46
	29.	Metal Hardware Nails	MHS/MHR	47
II—Cut nails (CN)	1.	Common	CM	48
	2.	Basket	BK	49
	3.	Clout	CL	50
III—Spikes (SP)	1.	Common	CM	51

TABLE 1 *Continued*

Type		Style	Style Identification	Table
	2.	Gutter	GRF/GRO	52
	3.	Round	RDC/RDF	53
IV—Staples (ST)	1.	Fence	FN	54
	2.	Poultry netting	PN	55
	3.	Flat top crown	FC	56
		Flat top crown	FCC	57
	4.	Round or V crown	RC	58
	5.	Preformed	PC	59
	6.	Electrical	RE	60
	7.	Preformed hoop	PH	61
	8.	Cap	STC	62

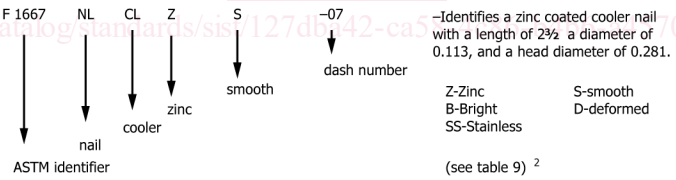
TABLE 2 Bend Angles for Fasteners Using the Test Methods F680 Bend Test

	Fastener Material	Bend Angle, °
1.	Steel wire: (low-carbon, medium-low carbon, medium-carbon) (unhardened)	180
2.	Stainless steel wire	180
3.	Hardened steel fasteners	20
4.	Sheet steel for cut nails, Type II, and cut spikes, Type III	90
5.	Copper (min 98 %)	180
6.	Copper clad wire (min 20 %)	180
7.	Aluminum alloy wire	90
8.	Brass wire	180

4. Classification

4.1 The fasteners and their Table 1 classification are identified as follows:

NOTE 2—The identification of fasteners, classified by style and type (alpha indicators) followed by a dash number (numerical code) based on Tables ~~3–65~~,3–62, identifies dimensions specifically and establishes a PIN (part identifying number) system when preceded by the F1667 ASTM designator of this specification. For example:



4.2 The trade designation, *S*, pennyweight, used in commercial practice is referenced in Tables ~~3–64~~3–47 wherever it applies.

5. Ordering Information

5.1 Orders for driven fasteners under this specification shall include the following information:
5.1.1 Quantity or weight;
5.1.2 Part identifying number (PIN) or product description (see 4.1 and appropriate table);
5.1.3 Special material requirements, if specified, including coatings or finishes;
5.1.4 ASTM designation;
5.1.5 Packaging requirements;
5.1.6 A producer's or supplier's certification that the material and the finished fastener are in compliance with this specification, furnished only when specified in the purchase order;
5.1.7 Supplementary requirements, if any; and
5.1.8 Any additions agreed upon between the purchaser and the supplier.

6. Material Requirements

6.1 Steel wire used in the manufacture of driven fasteners shall be of low carbon, medium-low carbon, or medium-high carbon.

6.2 Stainless steel wire used in the manufacture of driven fasteners shall be of Types 302, 304, 305, or 316.

6.3 Carbon steel wire for the manufacture of hardened steel nails shall be suitable for heat treatment to a minimum hardness of 37 HRC.

6.4 Sheet steel used in the manufacture of cut nails (Type II) and cut spikes (Type III) shall be a medium-carbon sheet steel.

6.5 Copper used in the manufacture of driven fasteners shall contain a minimum of 98 % pure copper.

6.6 Copper-clad steel wire used in the manufacture of driven fasteners shall contain not less than 20 % copper by weight. The average thickness of copper on the steel wire shall be not less than 10 % of the radius of the clad wire; the minimum thickness of copper on the steel wire shall be not less than 8 % of the radius of the clad wire.

6.7 Aluminum alloy wire used in the manufacture of fasteners shall conform to Alloy 2024, 5056, 6061, or 6110 and have a minimum ultimate tensile strength of 60 000 psi.

NOTE 3—Smooth shank nails are sometimes chemically treated to remove grease, oil, and foreign matter and to roughen the surface microscopically. Mechanically deformed nails are sometimes cleaned to remove grease and foreign matter.

6.8 Brass wire used in the manufacture of fasteners shall be of good commercial quality suitable for the purpose.

7. Physical Properties

7.1 *Ductility*—The fasteners shall be sufficiently ductile to withstand cold bending without fracture, as specified in Table 2 for various materials used in the manufacture of fasteners utilizing the conventional bend test described in Test Methods F680. Mandrel diameter used in this test shall not exceed nail/wire diameter. The cold bend test shall not apply to unhardened nails with deformed shanks.

7.2 *Tensile Strength*—Finished driven fasteners are not normally subject to tension testing. However, the wire or sheet used to manufacture the fastener is tested as required for control in the production process during manufacture.

7.3 *Number per pound*—Number per pound figures are not requirements. Number per pound varies (1) as actual dimensions vary within tolerance ranges, (2) between bright and coated nails, and (3) with zinc coating thickness for galvanized nails. No tolerances have been established for these figures. They are for reference only and shall not be used as product acceptance/rejection criteria.

8. Dimensions and Tolerances

8.1 Nominal dimensions of nails and spikes shall be as shown in Tables ~~3–56.~~3–53. The following dimensional designations shall apply:

S = trade designation (reference in penny weight),
L = length, in.,
H = head diameter or width, in.,
D = shank diameter, in.,
~~*B* = head separation, in. (Table 18), and~~
B = head separation, in. (Table 17), and
No./lb = approximate count per pound.

8.1.1 The lengths, *L*, of nails and spikes with flat heads or parallel shoulders under the head shall be measured from under the head or shoulder to the tip of the point. All other nails and spikes shall be measured overall.

8.1.2 The diameter, *D*, of smooth shank nails and spikes shall be measured away from the gripper marks. The diameter, *D*, of ~~formed or deformed shanks~~ deformed shank nails shall be measured before deformation, ~~or, if specified, the thread crest diameter after deformation, or both.~~ or when available, the smooth section of the shank away from any gripper marks. All diameter dimensions shall be taken prior to the application of or after the removal of any coatings or finish.

8.2 *Tolerances on Nominal Dimensions for Nails and Spikes:*

8.2.1 Length tolerances shall be ±1/32 in. for lengths up to and including 1 in.; ±1/16 in. for lengths over 1 in., up to and including 2½ in.; ±3/32 for lengths over 2½ in., up to and including 7 in.; and ±⅛ in. for all lengths over 7 in.

8.2.2 Shank diameter tolerances shall be ±0.002 in. for diameters smaller than 0.076 in. and ±0.004 in. for diameters 0.076 in. and larger.

8.2.3 *Head Diameter Tolerances:*

8.2.3.1 *Hand Driven*—Tolerances on concentric round head diameters ~~of roofing nails shall be +0, −10 % of the nominal head diameter (the mean of two readings 90° apart). For other brads, nails, and spikes, the tolerance shall be~~ shall be ±10 % of the nominal head diameter (individual measurement). The difference in diameter across the long axis ~~of a roofing nail~~ shall not exceed that across the short axis by more than ~~20 %. For other brads, nails, and spikes, the difference in diameter across the long axis shall not exceed that across the short axis by more than~~ 10 %. A fillet shall be provided under the head if not otherwise specified.

8.2.3.2 ~~*Power*~~*Power-Tool Driven*—Tolerances on head diameters of ~~power-driven~~ power-tool driven nails shall comply with the nail manufacturer's specifications and shall be suitable for use in the make and model of the tool specified.

8.3 Nominal dimensions of staples shall be as shown in Tables ~~57–65,~~54–60, and the following dimensional designations shall apply:

8.3.1 *Hand Tool–Driven Nominal Dimensions:*

L = leg length, inside, in.,
D = round leg diameter, in.,
C = crown width, inside, in., and
No./lb = approximate count per pound.

8.3.2 *Power Tool–Driven Nominal Dimensions:*

D = round leg diameter, in.,
L = leg length, outside, in.,
~~*T* = leg thickness, in. (see Tables 59 and 60),~~
T = leg thickness, in. (see Tables 56 and 57),
~~*W* = leg width, in. (see Tables 59 and 60),~~
W = leg width, in. (see Tables 56 and 57),
C = crown width, outside, in., and
G = steel wire gage.

8.4 *Tolerances on Nominal Dimensions for Staples:*

8.4.1 Leg length, *L*, tolerances shall be +1/32, −1/64 in. for both hand tool–driven and power tool–driven staples.

8.4.2 Diameter tolerances for hand tool–driven round staples shall be ±0.002 in. for diameters smaller than 0.076 in. and ±0.004 in. for diameters 0.076 in. and larger.

8.4.3 Thickness and width tolerances on ~~power-driven~~ power-tool driven staples shall comply with the manufacturer's specification and shall be suitable for use in the make and model tool specified (see Tables ~~59~~56 and ~~60).~~57).

8.4.4 Crown width tolerances are ±1/32 in. unless otherwise specified.

8.5 *Nominal Dimensions for Cut Nails, Type II*—Unless otherwise specified, cut nails shall be sheared from medium carbon sheet steel and shall have a wedge-shaped shank with a sheared square point end narrower than the upset head end. The designation *T* in Tables ~~46–51~~49–50 refers to sheet thickness in finished product. Other designations shall be the same as those for nails in 8.1.

8.6 When gage is used for a nominal diameter dimension in the application of this specification, it shall be in accordance with the decimal equivalents as shown in Specification ~~A510M~~A510/A510M, unless otherwise specified.

9. Workmanship

9.1 Fasteners covered by this specification shall be true to shape, well-finished, free from imperfections, clean, and free of corrosion. ~~Mechanically~~Power-tool driven collated items shall be uniform and aligned properly in their assembled form for use in power tools.

10. Protective Coatings and Finishes

10.1 *Zinc Coating:*

10.1.1 Driven fasteners required to be zinc coated shall be cut and formed from hot-dip, hard-wiped, galvanized steel wire, ~~electrogalvanized~~ electrodeposited (electrogalvanized) steel wire, or zinc flake/chromate dispersion-coated steel wire; or they shall be cut from uncoated (bright) steel wire and shall be hot-dip galvanized, electrodeposited zinc coated, mechanically deposited zinc coated, or zinc flake/chromate dispersion coated after forming. ~~Power-driven staples are not normally zinc coated after forming.~~

10.1.2 Hot-dip galvanized or electrogalvanized steel wire for the manufacture of fasteners shall have a coating weight in accordance with Specification A641/A641M, Supplementary Requirements, Class 1.

10.1.3 Hot-dip galvanized steel fasteners coated after forming shall have a coating weight in accordance with Specification A153/A153M, Class D, when a heavier coating for exterior use is specified. If not otherwise specified, the coating weight shall be in accordance with Specification A641/A641M, Supplementary Requirements, Class 1.

10.1.4 Mechanically deposited zinc coatings applied to fasteners after forming shall have a thickness in accordance with Specification B695, Class 40, unless otherwise specified.

10.2 *Other Coatings and Finishes (When Specified):*

~~10.2.1 Cement coating shall be applied by tumbling, mechanical dispensing device, or immersion in resin or other similar material and shall not be tacky or gummy. Cement coatings on power-driven fasteners shall be uniform and applied before, during, or after the fasteners are cohered into strips, clips, or coils.~~

~~NOTE 4—Cement coatings increase the holding strength in withdrawal of a driven fastener, depending on the fastener size, amount of cement coating applied, and method of driving.~~

10.2.1 Chemical etching shall remove the polish of fabrication and roughen the surface microscopically.

10.2.2 Blued nails shall be heated to form a thin, colored oxide on the surface.

10.2.3 Miscellaneous ~~finishes,~~ finishes and coatings, such as polymer coatings, tin plating, liquor, brass plating, copper plating, phosphate coating, or oil coating shall be applied.

NOTE 4—Polymer coatings are often used to assist in the driving of power-tool driven fasteners.

10.3 *Altered Shapes and Deformations:*

10.3.1 Mechanically formed or deformed nail shanks shall have barbs, flutes, threads, or angular serrations formed onto the wire from which the nail is manufactured. Mechanically deformed shanks shall have vertical or helical flutes or screw-type or annular (ring)-type deformations rolled onto the shank. Symmetrical helical shank deformations shall be obtained by twisting square wire. The deformations shall pass entirely around the shank body, resulting in expanded ridges and depressions. Interruptions in shank deformation to facilitate attachment of materials for collating nails is permitted.

10.3.2 Mechanically formed or deformed nail heads shall be round or T-headed; or they shall be altered round for suitable use in a given make and model of ~~a power-driving fastening system.~~ power-tool.

10.3.3 Staples manufactured for intended use in power tools shall comply with the tool manufacturer's specification or Type IV, Style 3 (Table ~~59~~56 or Table ~~60).~~57).

11. Certification

11.1 When specified in the purchase order, a producer's or supplier's certification shall be furnished to the purchaser, indicating that the fasteners are in compliance with this specification and the purchase order.

12. Packaging and Package Marking

12.1 Unless otherwise specified, fasteners shall be in substantial commercial containers of the type, size, and kind commonly used for the purpose, so constructed as to preserve the contents in good condition and to ensure acceptance and safe delivery by common or other carriers to the point of delivery. In addition, the containers shall be so made that the contents can be removed partially without destroying the container's ability to serve as a receptacle for the remainder of the contents.

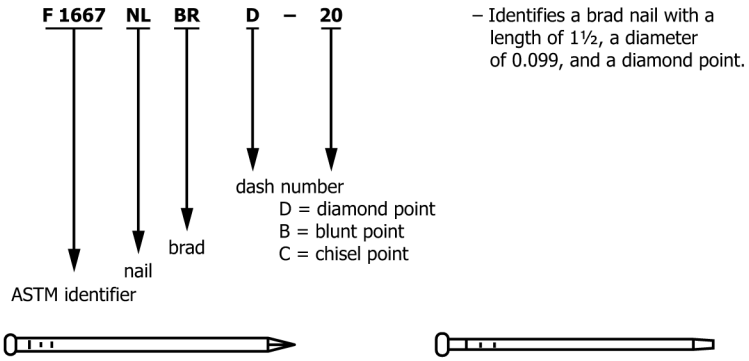
12.2 When specified, individual packages and shipping containers shall be marked with the part-identifying ~~number and type,~~number, style (see Table 1), fastener length, diameter (or gage, as applicable) ~~of the fastener, the~~ material (other than carbon steel), coating/finish, for nails-shank style (smooth, ring, screw, etc.), for staples –crown width, the name of the manufacturer or distributor, country of origin, and the quantity or net weight.

13. Keywords

13.1 diameter; driven fasteners; head; length; nails; point; spikes; staples

TABLE 3 Type I, Style 1—Brads[A]

NOTE 1—Steel wire, brad head, diamond point, round smooth shank, bright finish. When specified, brads shall have a modified brad head with a blunt or chiseled point for use with mechanical drivers.

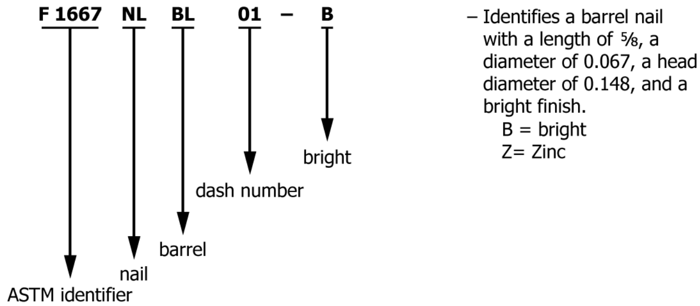


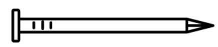
Dash No.	*L*	*D*	*S*	No./lb	Dash No.	*L*	*D*	*S*	No./lb
01	⅜	0.035	. . .	9520	21	1¾	0.062	. . .	670
02	½	0.035	. . .	7060	22	1¾	0.080	. . .	400
03	½	0.048	. . .	3990	23	1¾	0.099	5d	270
04	⅝	0.035	. . .	5680	24	2	0.062	. . .	580
05	⅝	0.048	. . .	3200	25	2	0.080	. . .	350
06	¾	0.035	. . .	4800	26	2	0.113	6d	180
07	¾	0.048	. . .	2620	27	2¼	0.080	. . .	320
08	¾	0.062	. . .	1550	28	2¼	0.113	7d	160
09	⅞	0.035	. . .	4220	29	2½	0.080	. . .	290
10	⅞	0.048	. . .	2220	30	2½	0.131	8d	110
11	⅞	0.062	. . .	1280	31	2¾	0.131	9d	97
12	1	0.054	. . .	1500	32	3	0.148	10d	70
13	1	0.062	. . .	1120	33	3¼	0.148	12d	65
14	1	0.072	. . .	904	34	3½	0.162	16d	50
15	1¼	0.054	. . .	1210	35	4	0.192	20d	31
16	1¼	0.062	. . .	940	36	4½	0.207	30d	24
17	1¼	0.080	3d	560	37	5	0.225	40d	18
18	1½	0.054	. . .	1040	38	5½	0.244	50d	14
19	1½	0.080	. . .	470	39	6	0.262	60d	11
20	1½	0.099	4d	320	...	...	. . .	. . .	. . .

[A]All dimensions are given in inches.

TABLE 4 Type I, Style 2—Barrel Nails[A]

NOTE 1—~~Steel~~ Carbon steel wire, flat head, diamond point, round smooth shank, bright, zinc coated or ~~cement coated~~other coating as specified.



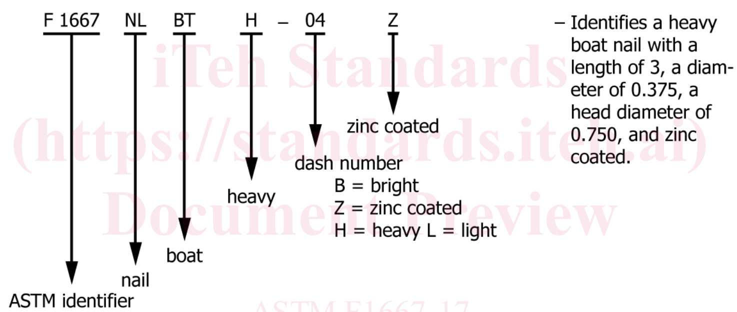


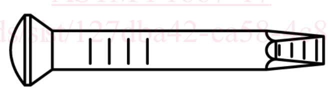
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	⅝	0.067	0.148	1.550	05	1⅛	0.076	0.177	670
02	¾	0.067	0.148	1.300	06	1¼	0.080	0.188	540
03	⅞	0.076	0.177	850	07	1⅜	0.092	0.219	380
04	1	0.076	0.177	750	08	1½	0.092	0.219	350

[A]All dimensions are given in inches.

~~**TABLE 5 Type I, Style 3—Boat nails[A]**~~

~~NOTE 1—Steel wire, oval countersunk head, chisel point, round smooth shank, bright or zinc coated as specified.~~



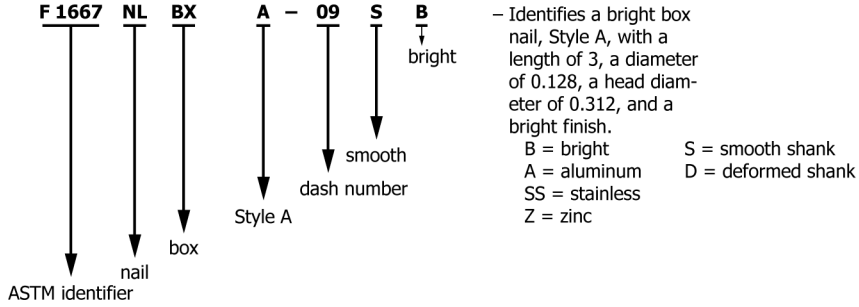


F 1667 NLBTL						F 1667 NLBTH					
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	4d	1½	0.188	0.406	82	01	4d	1½	0.250	0.500	47
02	6d	2	0.188	0.406	62	02	6d	2	0.250	0.500	36
03	8d	2½	0.188	0.406	50	03	8d	2½	0.250	0.500	29
04	10d	3	0.250	0.500	24	04	10d	3	0.375	0.750	11
05	12d	3¼	0.250	0.500	22	05	12d	3¼	0.375	0.750	10
06	16d	3½	0.250	0.500	20	06	16d	3½	0.375	0.750	9
07	20d	4	0.250	0.500	18	07	20d	4	0.375	0.750	8

[A]All dimensions are given in inches.

TABLE 65 Type I, Style ~~4A—Box~~3A—Box Nails[A]

NOTE 1—~~Steel~~ Carbon steel, stainless steel or aluminium wire, flat head, diamond point, round, ~~barbed~~deformed or smooth shank, ~~bright or cement coated~~bright, zinc coated or other coating as specified. When specified, box nails shall have an altered or T-head with a diamond, blunt, or chisel point for use with ~~mechanical drivers.~~power tools.

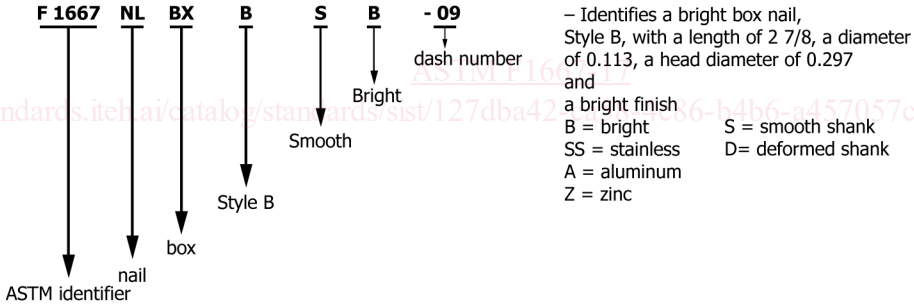


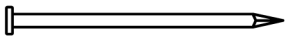
F 1667 NLBXA											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.067	0.188	940	08	9d	2¾	0.113	0.297	120
02	3d	1¼	0.076	0.219	590	09	10d	3	0.128	0.312	90
03	4d	1½	0.080	0.219	450	10	12d	3¼	0.128	0.312	83
04	5d	1¾	0.080	0.219	390	11	16d	3½	0.135	0.344	69
05	6d	2	0.099	0.266	220	12	20d	4	0.148	0.375	50
06	7d	2¼	0.099	0.266	200	13	30d	4½	0.148	0.375	45
07	8d	2½	0.113	0.297	140	14	40d	5	0.162	0.406	34

[A]All dimensions are given in inches.

TABLE ~~7~~6 Type I, Style ~~4B—Box~~3B—Box Nails[A]

NOTE 1—~~Steel~~ Carbon steel, stainless steel or aluminum wire, flat head, diamond point, ~~round smooth shank, cement coated.~~round, deformed or smooth shank, bright, zinc coated or other coating as specified.



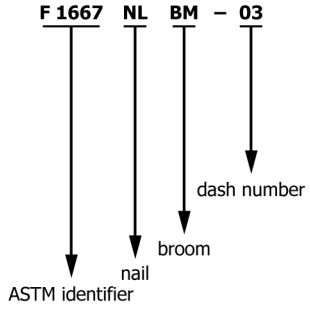


F 1667 NLBXB											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.058	0.172	1250	06	7d	2⅛	0.086	0.250	280
02	3d	1⅛	0.062	0.188	980	07	8d	2⅜	0.099	0.266	190
03	4d	1⅜	0.067	0.203	680	08	9d	2⅝	0.099	0.266	170
04	5d	1⅝	0.072	0.219	510	09	10d	2⅞	0.113	0.297	120
05	6d	1⅞	0.086	0.250	315	. . .	. . .	. . .	. . .	. . .	. . .

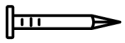
[A]All dimensions are given in inches.

TABLE 87 Type I, Style ~~5—Broom~~4—Broom Nails[A]

NOTE 1—Steel wire, flat or star head, diamond point, round smooth shank, bright finish, as specified.



– Identifies a broom nail with a length of ¾, a diameter of 0.072, and a head diameter of 0.203.

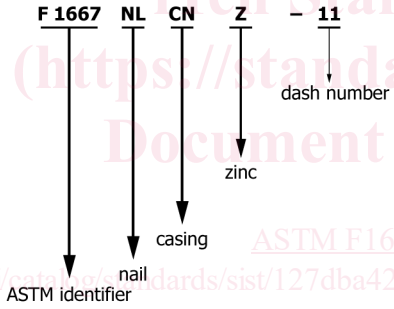


Dash No.	*L*	*D*	*H*	No./lb
01	⅝	0.072	0.203	1480
02	⅝	0.080	0.219	990
03	¾	0.072	0.203	1170
04	¾	0.080	0.219	840

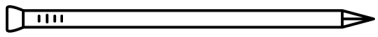
[A]All dimensions are given in inches.

TABLE 98 Type I, Style ~~6—Casing~~5—Casing Nails[A]

NOTE 1—~~Steel~~ Carbon steel or stainless steel wire, flat countersunk cupped head, diamond point, round smooth shank, bright ~~finish.~~or zinc coated.



– Identifies a zinc coated casing nail with a length of 3½, a diameter of 0.135, and a head diameter of 0.177.
SS - stainless
Z- zinc
B - bright

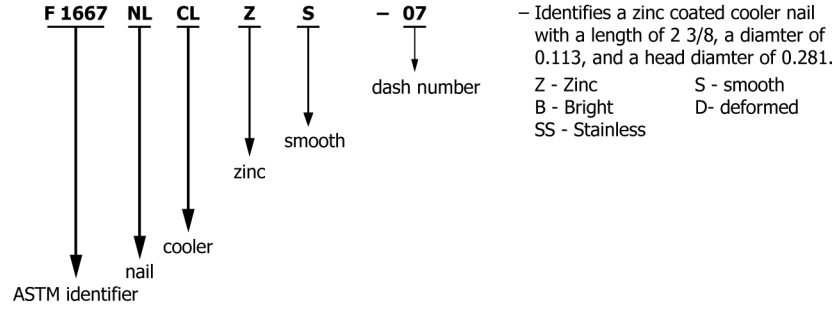


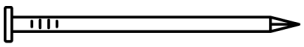
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.067	0.099	1090	07	8d	2½	0.113	0.155	150
02	3d	1¼	0.076	0.113	650	08	9d	2¾	0.113	0.155	135
03	4d	1½	0.080	0.120	490	09	10d	3	0.128	0.170	95
04	5d	1¾	0.080	0.120	415	10	12d	3¼	0.128	0.170	90
05	6d	2	0.099	0.142	245	11	16d	3½	0.135	0.177	75
06	7d	2¼	0.099	0.142	215	. . .	. . .	. . .	. . .	. . .	. . .

[A]All dimensions are given in inches.

TABLE ~~109~~ Type I, Style ~~7—Cooler~~6—Cooler Nails[A]

NOTE 1—~~Steel~~ Carbon steel or stainless steel wire, flat head, diamond point, round smooth ~~shank, cement coated.~~ or deformed shank, bright or zinc or other coating as specified. When specified, coolers shall have an altered or T-head for use with mechanical drivers.



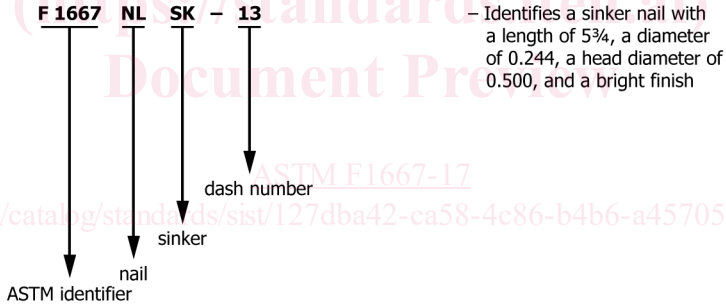


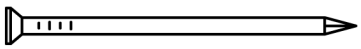
Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	2d	1	0.062	0.172	1110	06	7d	2⅛	0.099	0.266	210
02	3d	1⅛	0.067	0.188	840	07	8d	2⅜	0.113	0.281	140
03	4d	1⅜	0.080	0.219	490	08	9d	2⅝	0.113	0.281	130
04	5d	1⅝	0.086	0.234	370	09	10d	2⅞	0.120	0.297	100
05	6d	1⅞	0.092	0.250	280	. . .	. . .	. . .	. . .	. . .	. . .

[A]All dimensions are given in inches.

TABLE ~~1110~~ Type I, Style ~~8—Sinker~~7—Sinker Nails[A]

NOTE 1—Steel wire, flat countersunk head, diamond point, round smooth shank, bright or ~~cement coated.~~ other coating as specified. When specified, sinkers shall have an altered or T-head for use with ~~mechanical drivers.~~power tools.



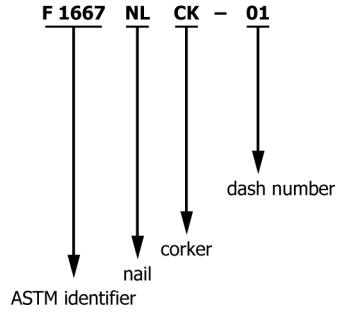


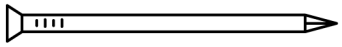
Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	3d	1⅛	0.067	0.172	940	08	12d	3⅛	0.135	0.312	81
02	4d	1⅜	0.080	0.203	530	09	16d	3¼	0.148	0.344	64
03	5d	1⅝	0.086	0.219	390	10	20d	3¾	0.177	0.375	40
04	6d	1⅞	0.092	0.234	290	11	30d	4¼	0.192	0.406	30
05	7d	2⅛	0.099	0.250	220	12	40d	4¾	0.207	0.438	23
06	8d	2⅜	0.113	0.266	150	13	60d	5¾	0.244	0.500	14
07	10d	2⅞	0.120	0.281	110	. . .	. . .	. . .	. . .	. . .	. . .

[A]All dimensions are given in inches.

TABLE ~~12~~11 Type I, Style ~~9—Corker8—Corker~~ Nails[A]

NOTE 1—Steel wire, flat countersunk head, diamond point, round smooth shank, ~~cement coated.~~ or other coating as specified. When specified, corkers shall have an altered or T-head for use with mechanical drivers.



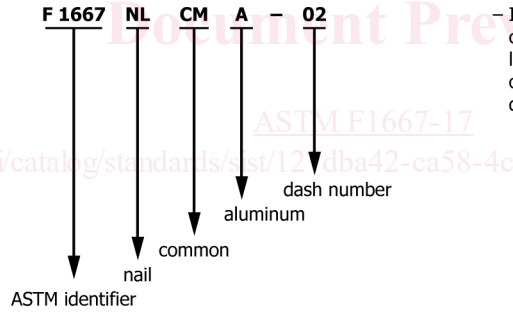


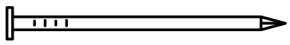
Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	2d	1	0.062	0.156	1220	09	10d	2⅞	0.135	0.312	89
02	3d	1¼	0.072	0.188	720	10	12d	3⅛	0.135	0.312	81
03	4d	1½	0.086	0.219	420	11	16d	3⅜	0.148	0.344	62
04	5d	1⅝	0.086	0.219	320	12	20d	3⅞	0.177	0.375	38
05	6d	1⅞	0.099	0.250	250	13	30d	4⅜	0.192	0.406	29
06	7d	2⅛	0.099	0.250	220	14	40d	4⅞	0.207	0.438	22
07	8d	2⅜	0.120	0.281	130	15	50d	5⅜	0.226	0.469	17
08	9d	2⅝	0.120	0.281	120	16	60d	5⅞	0.244	0.500	13

[A]All dimensions are given in inches.

TABLE ~~13~~12 Type I, Style ~~10—Common 9—~~Aluminum Common Nails[A]

NOTE 1—Aluminum alloy wire, flat head, diamond point, round smooth shank, or, when specified, square barbed shank.



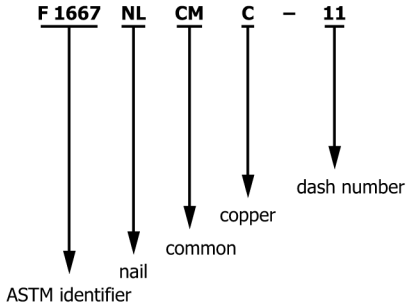


F 1667 NLCMA											
Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	4d	1½	0.099	0.250	830	04	10d	3	0.162	0.312	170
02	6d	2	0.120	0.266	430	05	16d	3½	0.177	0.344	120
03	8d	2½	0.148	0.281	220	06	20d	4	0.199	0.406	78

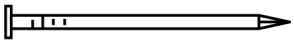
[A]All dimensions are given in inches.

TABLE ~~14~~13 Type I, Style ~~10—Common 9—~~Copper Common Nails[A]

NOTE 1—Copper wire, flat head, diamond point, round smooth shank.



– Identifies a copper common nail with a length of 2, a diameter of 0.134, and a head diameter of 0.281.

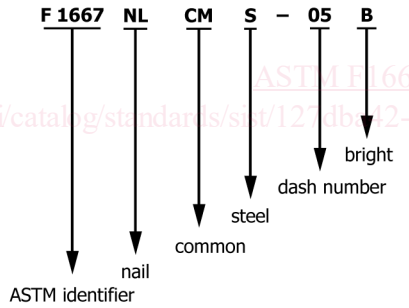


F 1667 NLCMC									
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	⅝	0.065	0.156	1380	10	2	0.120	0.266	130
02	¾	0.065	0.156	1160	11	2	0.134	0.281	. . .
03	¾	0.072	0.172	960	12	2½	0.134	0.281	86
04	⅞	0.072	0.172	810	13	3	0.148	0.312	56
05	1	0.072	0.172	700	14	3½	0.165	0.344	40
06	1¼	0.083	0.203	420	15	4	0.203	0.406	23
07	1½	0.109	0.250	210	16	4½	0.220	0.438	18
08	1¾	0.109	0.250	180	17	5	0.238	0.469	14
09	1¾	0.120	0.266	140	18	6	0.284	0.531	8

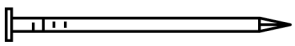
[A]All dimensions are given in inches.

TABLE ~~15~~14 Type I, Style ~~10—Common 9—~~Steel Common Nails[A]

NOTE 1—~~Steel~~ Carbon steel or stainless steel wire, flat head, diamond point, round smooth shank, bright, zinc coated or ~~cement coated~~other coating as specified.



– Identifies a steel common nail with a length of 2, a diameter of 0.113, a head diameter of 0.266, and a bright finish.
B = bright
Z = zinc coated
S = steel
SS = stainless

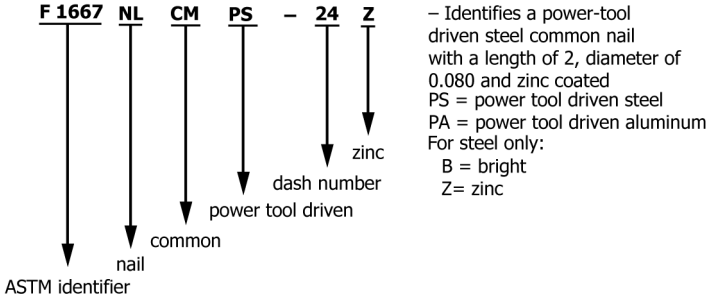


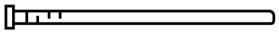
F 1667 NLCMS											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.072	0.172	850	09	10d	3	0.148	0.312	66
02	3d	1¼	0.080	0.203	540	10	12d	3¼	0.148	0.312	61
03	4d	1½	0.099	0.250	290	11	16d	3½	0.162	0.344	47
04	5d	1¾	0.099	0.250	250	12	20d	4	0.192	0.406	30
05	6d	2	0.113	0.266	170	13	30d	4½	0.207	0.438	23
06	7d	2¼	0.113	0.266	150	14	40d	5	0.226	0.469	17
07	8d	2½	0.131	0.281	100	15	50d	5½	0.244	0.500	14
08	9d	2¾	0.131	0.281	92	16	60d	6	0.262	0.531	11

[A]All dimensions are given in inches.

TABLE ~~16~~15 Type I, Style ~~10—Common 9—~~Power-tool Driven Common Nails[A]

NOTE 1—Aluminum alloy wire, stainless steel or carbon steel wire, (bright, zinc coated or ~~cement coated),~~ other coating as specified), round, altered or T-head, diamond or chisel point, round smooth or deformed shank, as specified. ~~For~~ Primarily intended for use with ~~mechanical drivers.~~power-tools.





F1667 NLCMM																	
Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*
01	1¼	0.080	15	1¾	0.086	29	2	0.148	43	1¾	0.120	57	2⅜	0.113	71	3	0.131
02	1¼	0.086	16	1¾	0.092	30	2¼	0.092	44	1⅞	0.120	58	2⅜	0.120	72	3	0.148
03	1¼	0.092	17	1¾	0.099	31	2¼	0.099	45	1⅞	0.131	59	2⅜	0.131	73	3¼	0.120
04	1¼	0.099	18	1¾	0.113	32	2¼	0.113	46	1⅞	0.148	60	2⅜	0.148	74	3¼	0.131
05	1½	0.080	19	1⅞	0.080	33	2½	0.092	47	2	0.120	61	2½	0.120	75	3¼	0.148
06	1½	0.086	20	1⅞	0.086	34	2½	0.099	48	2	0.131	62	2½	0.148	76	3½	0.135
07	1½	0.092	21	1⅞	0.092	35	2½	0.113	49	2⅛	0.099	63	2½	0.162	77	3½	0.148
08	1½	0.099	22	1⅞	0.099	36	2½	0.131	50	2⅛	0.113	64	2⅝	0.148	78	3½	0.162
09	1½	0.113	23	1⅞	0.113	37	3½	0.131	51	2⅛	0.120	65	2¾	0.120	79	4	0.148
10	1⅝	0.080	24	2	0.080	38	1½	0.120	52	2⅛	0.131	66	2¾	0.131	80	4	0.162
11	1⅝	0.086	25	2	0.086	39	1½	0.131	53	2⅛	0.148	67	2¾	0.148	81	4½	0.148
12	1⅝	0.092	26	2	0.092	40	1½	0.148	54	2¼	0.120	68	2⅞	0.120	82	4½	0.162
13	1⅝	0.099	27	2	0.099	41	1½	0.162	55	2¼	0.131	69	3	0.120	...	...	...
14	1¾	0.080	28	2	0.113	42	1⅝	0.113	56	2¼	0.148	70	3	0.128	...	...	...

[A] All dimensions given in inches.