Designation: 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

A510/A510M Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel, and Alloy Steel

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.

4. Classification

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

[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**

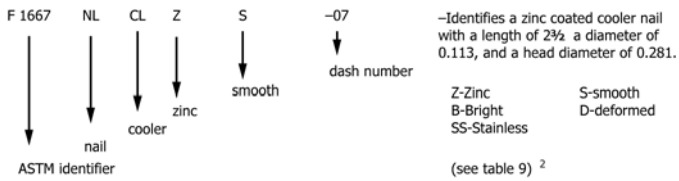
TABLE 1 Classification and Identification Index

Type		Style	Style Identification	Table
I—Nails (NL)	1.	Brads	BR	3
	2.	Barrel	BL	4
	3.	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
	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

NOTE 2—The identification of fasteners, classified by style and type (alpha indicators) followed by a dash number (numerical code) based on Tables 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 3–47 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 3–53. 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 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 deformed shank nails shall be measured before deformation, 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 ±1⁄8 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 shall be ±10 % of the nominal head diameter (individual measurement). 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-Tool Driven*—Tolerances on head diameters of 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 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 56 and 57),
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-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 56 and 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 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 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. 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, 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.

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 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 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 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 56 or Table 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.

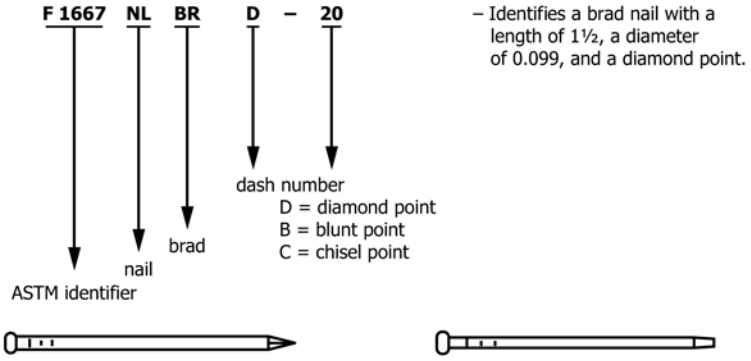
12.2 When specified, individual packages and shipping containers shall be marked with the part-identifying number, style (see Table 1), fastener length, diameter (or gage, as applicable) material (other than carbon steel), coating/finish, for nails-shank style (smooth, ring, screw, etc.), for staples –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.

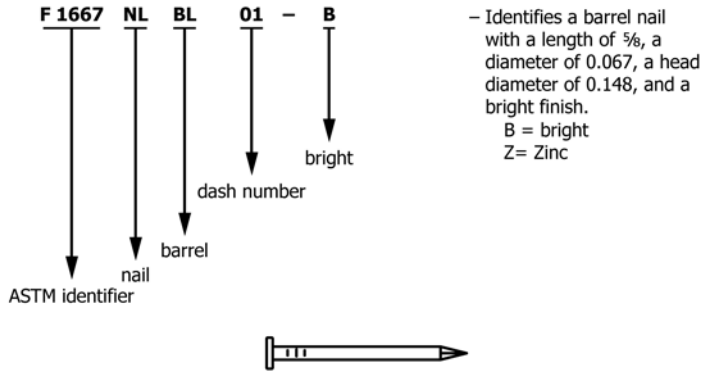


Dash No.	*L*	*D*	*S*	No./lb	Dash No.	*L*	*D*	*S*	No./lb
01	⅜	0.035	. . .	9520	21	1¾	0.062	. . .	670
02	½	0.035	. . .	7060	22	1¾	0.080	. . .	400
03	½	0.048	. . .	3990	23	1¾	0.099	5d	270
04	⅝	0.035	. . .	5680	24	2	0.062	. . .	580
05	⅝	0.048	. . .	3200	25	2	0.080	. . .	350
06	¾	0.035	. . .	4800	26	2	0.113	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—Carbon steel wire, flat head, diamond point, round smooth shank, bright, zinc coated or other coating as specified.

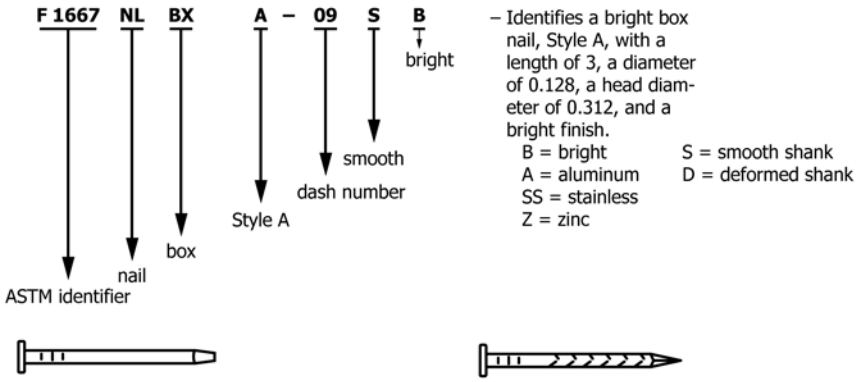


Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	⅝	0.067	0.148	1.550	05	1⅛	0.076	0.177	670
02	¾	0.067	0.148	1.300	06	1¼	0.080	0.188	540
03	⅞	0.076	0.177	850	07	1⅜	0.092	0.219	380
04	1	0.076	0.177	750	08	1½	0.092	0.219	350

[A]All dimensions are given in inches.

TABLE 5 Type I, Style 3A—Box Nails[A]

NOTE 1—Carbon steel, stainless steel or aluminium wire, flat head, diamond point, round, deformed or smooth shank, 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 power tools.

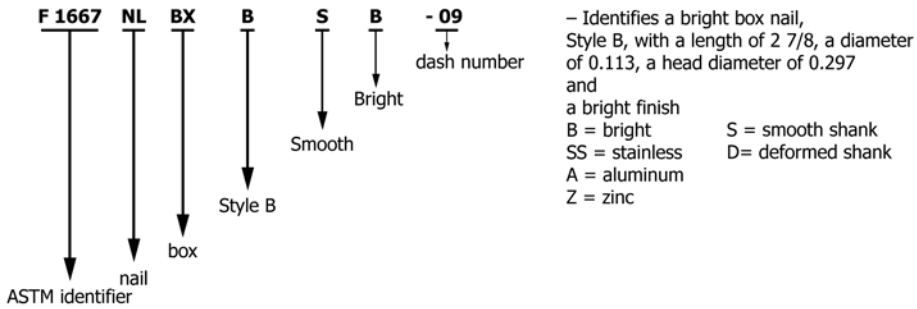


F 1667 NLBXA											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.067	0.188	940	08	9d	2¾	0.113	0.297	120
02	3d	1¼	0.076	0.219	590	09	10d	3	0.128	0.312	90
03	4d	1½	0.080	0.219	450	10	12d	3¼	0.128	0.312	83
04	5d	1¾	0.080	0.219	390	11	16d	3½	0.135	0.344	69
05	6d	2	0.099	0.266	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 6 Type I, Style 3B—Box Nails[A]

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

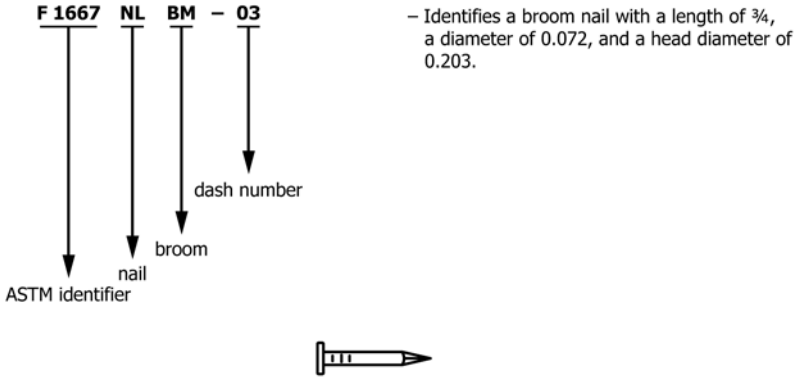


F 1667 NLBXB											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.058	0.172	1250	06	7d	2⅛	0.086	0.250	280
02	3d	1⅛	0.062	0.188	980	07	8d	2⅜	0.099	0.266	190
03	4d	1⅜	0.067	0.203	680	08	9d	2⅝	0.099	0.266	170
04	5d	1⅝	0.072	0.219	510	09	10d	2⅞	0.113	0.297	120
05	6d	1⅞	0.086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

[A]All dimensions are given in inches.

TABLE 7 Type I, Style 4—Broom Nails[A]

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

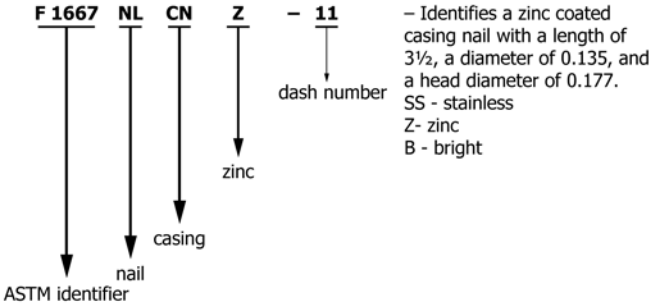


Dash No.	*L*	*D*	*H*	No./lb
01	⅝	0.072	0.203	1480
02	⅝	0.080	0.219	990
03	¾	0.072	0.203	1170
04	¾	0.080	0.219	840

[A]All dimensions are given in inches.

TABLE 8 Type I, Style 5—Casing Nails[A]

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

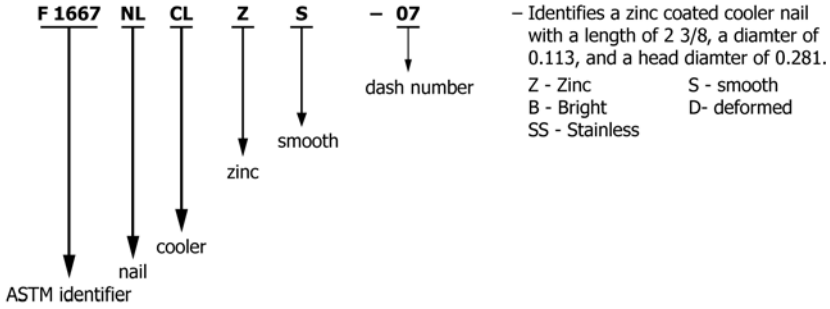


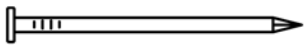
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.067	0.099	1090	07	8d	2½	0.113	0.155	150
02	3d	1¼	0.076	0.113	650	08	9d	2¾	0.113	0.155	135
03	4d	1½	0.080	0.120	490	09	10d	3	0.128	0.170	95
04	5d	1¾	0.080	0.120	415	10	12d	3¼	0.128	0.170	90
05	6d	2	0.099	0.142	245	11	16d	3½	0.135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

[A]All dimensions are given in inches.

TABLE 9 Type I, Style 6—Cooler Nails[A]

NOTE 1—Carbon steel or stainless steel wire, flat head, diamond point, round smooth 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.



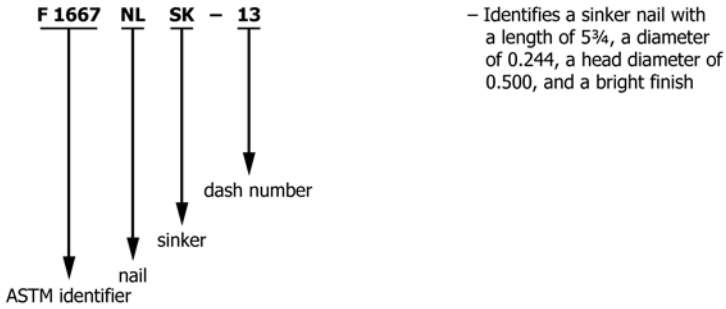


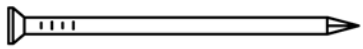
Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	2d	1	0.062	0.172	1110	06	7d	2 1/8	0.099	0.266	210
02	3d	1 1/8	0.067	0.188	840	07	8d	2 3/8	0.113	0.281	140
03	4d	1 3/8	0.080	0.219	490	08	9d	2 5/8	0.113	0.281	130
04	5d	1 5/8	0.086	0.234	370	09	10d	2 7/8	0.120	0.297	100
05	6d	1 7/8	0.092	0.250	280	...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

[A]All dimensions are given in inches.

TABLE 10 Type I, Style 7—Sinker Nails[A]

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



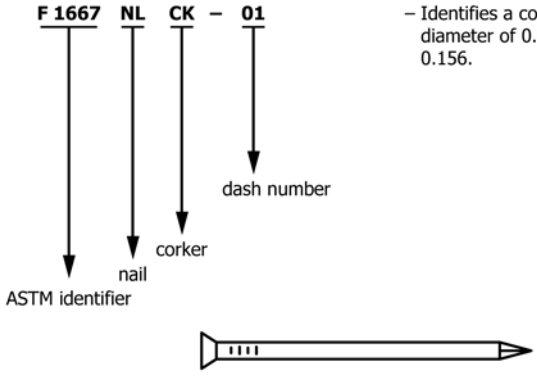


Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	3d	1 1/8	0.067	0.172	940	08	12d	3 1/8	0.135	0.312	81
02	4d	1 3/8	0.080	0.203	530	09	16d	3 1/4	0.148	0.344	64
03	5d	1 5/8	0.086	0.219	390	10	20d	3 3/4	0.177	0.375	40
04	6d	1 7/8	0.092	0.234	290	11	30d	4 1/4	0.192	0.406	30
05	7d	2 1/8	0.099	0.250	220	12	40d	4 3/4	0.207	0.438	23
06	8d	2 3/8	0.113	0.266	150	13	60d	5 3/4	0.244	0.500	14
07	10d	2 7/8	0.120	0.281	110	...	...	...	...	...	...

[A]All dimensions are given in inches.

TABLE 11 Type I, Style 8—Corker Nails[A]

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

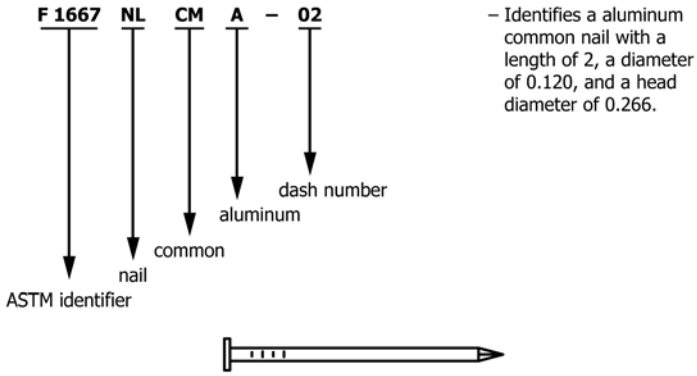


Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	2d	1	0.062	0.156	1220	09	10d	2⅞	0.135	0.312	89
02	3d	1¼	0.072	0.188	720	10	12d	3⅛	0.135	0.312	81
03	4d	1½	0.086	0.219	420	11	16d	3⅜	0.148	0.344	62
04	5d	1⅝	0.086	0.219	320	12	20d	3⅞	0.177	0.375	38
05	6d	1⅞	0.099	0.250	250	13	30d	4⅜	0.192	0.406	29
06	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 12 Type I, Style 9—Aluminum Common Nails[A]

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

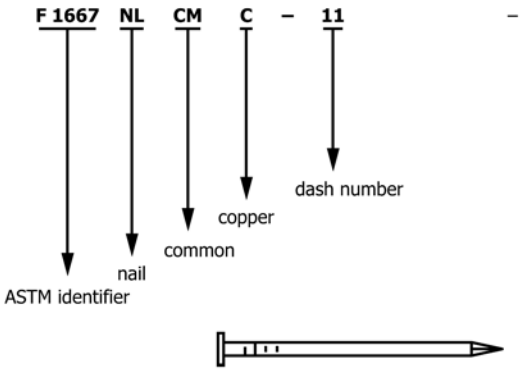


F 1667 NLCMA											
Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	4d	1½	0.099	0.250	830	04	10d	3	0.162	0.312	170
02	6d	2	0.120	0.266	430	05	16d	3½	0.177	0.344	120
03	8d	2½	0.148	0.281	220	06	20d	4	0.199	0.406	78

[A]All dimensions are given in inches.

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

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

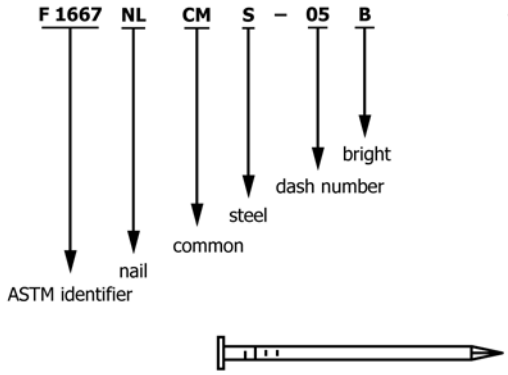


F 1667 NLCMC									
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	⅝	0.065	0.156	1380	10	2	0.120	0.266	130
02	¾	0.065	0.156	1160	11	2	0.134	0.281	. . .
03	¾	0.072	0.172	960	12	2½	0.134	0.281	86
04	⅞	0.072	0.172	810	13	3	0.148	0.312	56
05	1	0.072	0.172	700	14	3½	0.165	0.344	40
06	1¼	0.083	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 14 Type I, Style 9—Steel Common Nails[A]

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

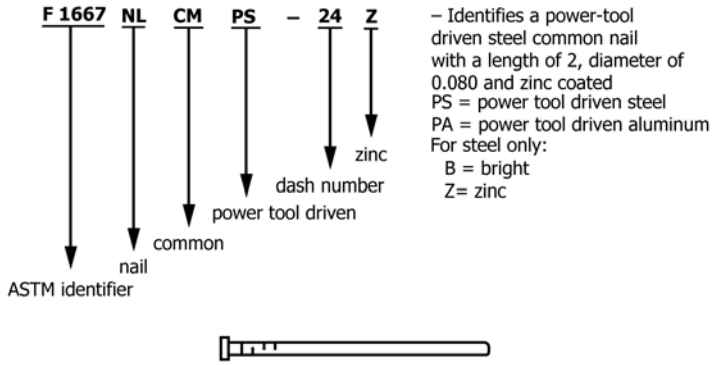


F 1667 NLCMS											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.072	0.172	850	09	10d	3	0.148	0.312	66
02	3d	1¼	0.080	0.203	540	10	12d	3¼	0.148	0.312	61
03	4d	1½	0.099	0.250	290	11	16d	3½	0.162	0.344	47
04	5d	1¾	0.099	0.250	250	12	20d	4	0.192	0.406	30
05	6d	2	0.113	0.266	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 15 Type I, Style 9—Power-tool Driven Common Nails[A]

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

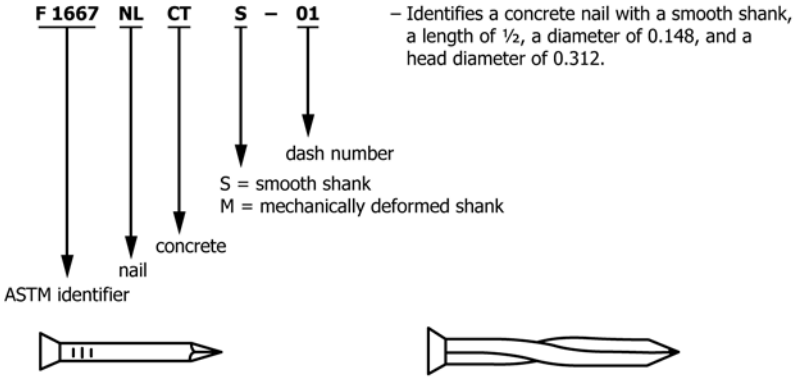


F1667 NLCMM																	
Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*	Dash No.	*L*	*D*
01	1¼	0.080	15	1¾	0.086	29	2	0.148	43	1¾	0.120	57	2⅜	0.113	71	3	0.131
02	1¼	0.086	16	1¾	0.092	30	2¼	0.092	44	1⅞	0.120	58	2⅜	0.120	72	3	0.148
03	1¼	0.092	17	1¾	0.099	31	2¼	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.

TABLE 16 Type I, Style 10—Concrete Nails[A]

NOTE 1—Hardened steel, flat countersunk head, diamond point, smooth or mechanically deformed shank formed from round or square stock, as specified, bright finish.



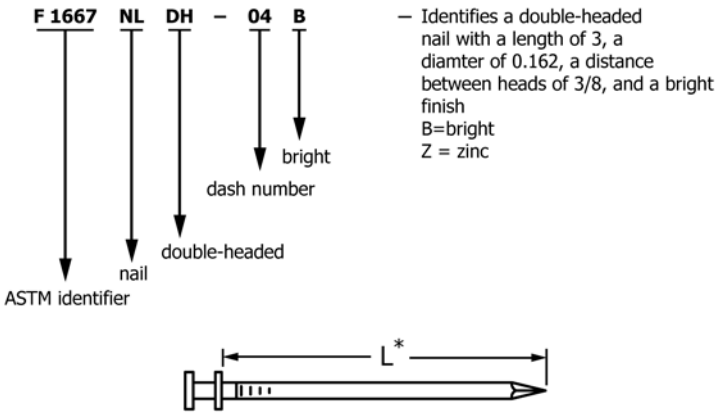
F 1667 NLCTS				
Dash No.	*L*	*D*	*H*	No./lb
01	½	0.148	0.312	450
02	⅝	0.148	0.312	350
03	¾	0.148	0.312	290
04	⅞	0.148	0.312	250
05	1	0.148	0.312	210

F 1667 NLCTM									
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	¾	0.181	0.284	240	05	2	0.181	0.284	93
02	1	0.181	0.284	204	06	2½	0.181	0.284	68
03	1½	0.181	0.284	116	07	2¾	0.181	0.284	60
04	1¾	0.181	0.284	112	08	3	0.181	0.284	52

[A]All dimensions are given in inches.

TABLE 17 Type I, Style 11—Double-Headed Nails (Duplex)[A]

NOTE 1—Steel wire, flat heads, diamond point, round smooth shank, bright finish or zinc coated.

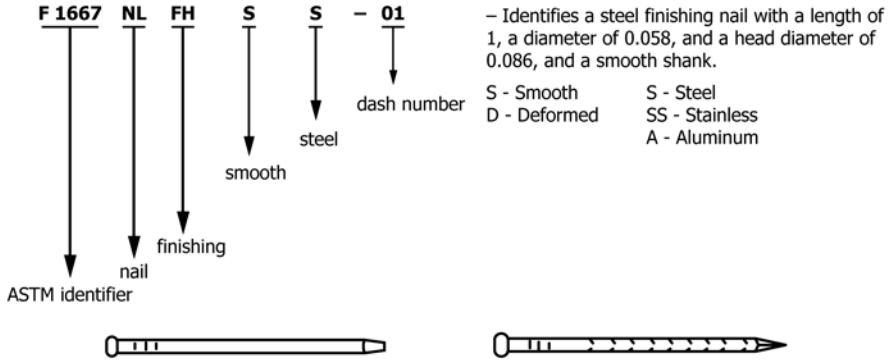


Dash No.	*S*	*L*	*D*	*B*	No./lb	Dash No.	*S*	*L*	*D*	*B*	No./lb
01	6d	1¾	0.113	¼	160	04	16d	3	0.162	⅜	45
02	8d	2¼	0.131	¼	90	05	20d	3½	0.192	⅜	28
03	10d	2¾	0.148	5/16	59	06	30d	4	0.207	7/16	22

[A]All dimensions are given in inches.

TABLE 18 Type I, Style 12—Finish Nails[A]

NOTE 1—Steel, stainless or aluminum wire, brad head, altered or clipped T-head for use with mechanical drivers, diamond or chisel point, smooth or deformed shank formed from round or square stock, as specified, bright finished.

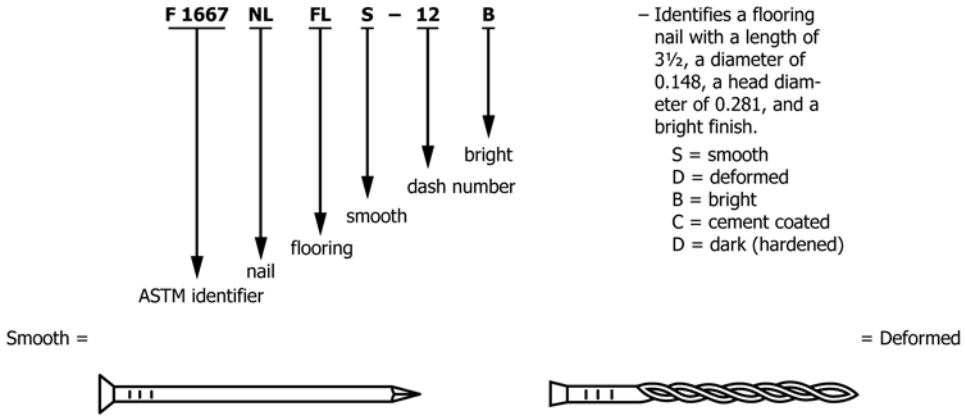


Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	2d	1	0.058	0.086	1.470	07	8d	2½	0.099	0.142	190
02	3d	1¼	0.067	0.099	880	08	9d	2¾	0.099	0.142	180
03	4d	1½	0.072	0.106	630	09	10d	3	0.113	0.155	120
04	5d	1¾	0.072	0.106	530	10	12d	3¼	0.113	0.155	110
05	6d	2	0.092	0.135	290	11	16d	3½	0.120	0.162	93
06	7d	2¼	0.092	0.135	250	12	20d	4	0.135	0.177	65

[A]All dimensions are given in inches.

TABLE 19 Type I, Style 13—Flooring Nails[A]

NOTE 1—Hardened steel or carbon steel wire, casing head or flat-cupped countersunk head, diamond or blunt point, round, smooth or mechanically deformed shank, dark (hardened), bright (steel wire) or cement coated, as specified.

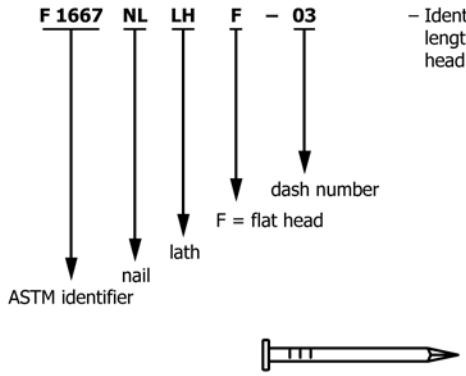


Dash No.	S	L	D	H	No./lb	Dash No.	S	L	D	H	No./lb
01	2d	1	0.072	0.141	840	07	7d	2¼	0.113	0.203	160
02	3d	1¼	0.072	0.141	700	08	8d	2½	0.135	0.177	100
03	4d	1½	0.080	0.156	430	09	8d	2½	0.113	0.203	110
04	4d	1½	0.092	0.156	370	10	10d	3	0.135	0.250	82
05	5d	1¾	0.092	0.156	310	11	12d	3¼	0.135	0.250	75
06	6d	2	0.113	0.203	180	12	16d	3½	0.148	0.281	58

[A]All dimensions are given in inches.

TABLE 20 Type I, Style 14—Lath Nails[A]

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

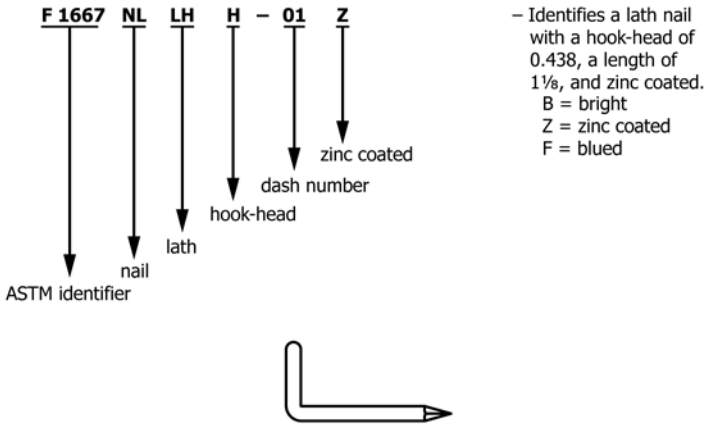


F1667 NLLHF					
Dash No.	S	L	D	H	No./lb.
01	2d	1	0.058	0.141	1.280
02	3d	1⅛	0.062	0.156	980
03	3d	1⅛	0.072	0.172	760
04	4d	1½	0.080	0.218	442

[A]All dimensions are given in inches.

TABLE 21 Type I, Style 14—Lath Nails[A]

NOTE 1—Steel wire, flat hook-head, diamond point, round smooth shank, bright, blued, or zinc coated as specified.

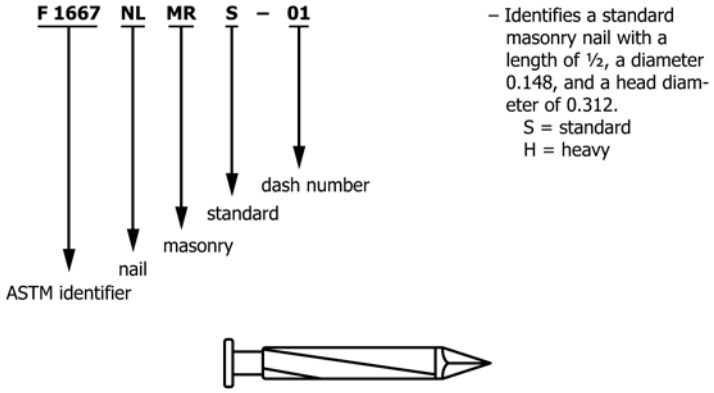


F 1667 NLLHH				
Dash No.	*L*	*D*	*H*	No./lb
01	1⅛	0.106	0.438	280

[A]All dimensions are given in inches.

TABLE 22 Type I, Style 15—Masonry Nails[A]

NOTE 1—Hardened steel, flat or flat countersunk head, diamond point, mechanically deformed shank, bright finish.

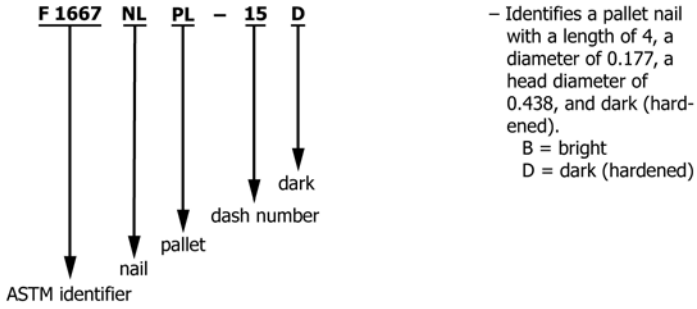


F 1667 NLMR									
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	½	0.148	0.312	340	09	2½	0.148	0.312	76
02	¾	0.148	0.312	280	10	3¾	0.148	0.312	70
03	1	0.148	0.312	170	11	3	0.148	0.312	67
04	1¼	0.148	0.312	140	12	3¼	0.148	0.312	60
05	1½	0.148	0.312	130	13	3½	0.162	0.344	48
06	1¾	0.148	0.312	110	14	3¾	0.162	0.344	45
07	2	0.148	0.312	98	15	4	0.177	0.375	35
08	2¼	0.148	0.312	84	. . .	. . .	. . .	. . .	. . .
F 1667 NLMRH									
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	1	0.250	0.562	63	05	2	0.250	0.562	34
02	1¼	0.250	0.562	47	06	2½	0.250	0.562	27
03	1½	0.250	0.562	43	07	3½	0.250	0.562	19
04	1¾	0.250	0.562	39	08	3	0.250	0.562	24

[A]All dimensions are given in inches.

TABLE 23 Type I, Style 16—Pallet Nails[A]

NOTE 1—Hardened steel or steel wire (for mechanical drivers); flat head, altered or T-Head (for mechanical drivers); diamond, blunt diamond, blunt chisel or blunt point; round, mechanically deformed shank; bright finish (steel wire); or dark (hardened), as specified.

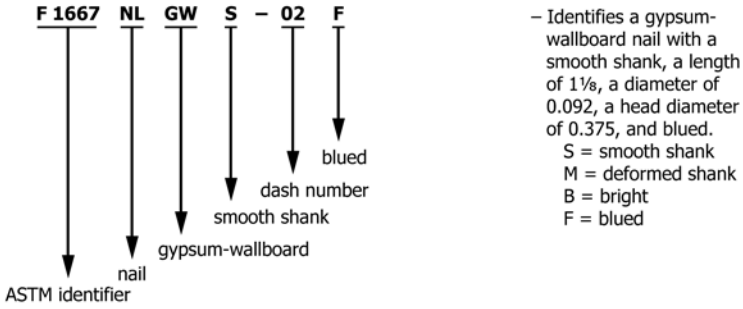


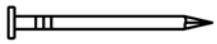
Dash No.	L	D	H	No. /Lb	Dash No.	L	D	H	No. Lb
01	1½	0.120	0.281	190	31	1¾	0.099	0.255	262
02	1⅝	0.120	0.281	170	32	1¾	0.099	0.280	262
03	2	0.120	0.281	140	33	2	0.084	0.200	318
04	2¼	0.120	0.281	130	34	2	0.086	0.235	304
05	2½	0.120	0.281	120	35	2	0.090	0.245	277
06	2½	0.135	0.312	93	36	2	0.099	0.255	229
07	3	0.120	0.281	98	37	2	0.099	0.280	229
08	3	0.135	0.312	79	38	2	0.105	0.270	204
09	3	0.148	0.312	66	39	2	0.113	0.280	176
10	3¼	0.135	0.312	73	40	2¼	0.084	0.200	283
11	3¼	0.148	0.312	61	41	2¼	0.086	0.235	270
12	3½	0.148	0.312	57	42	2¼	0.099	0.255	204
13	3½	0.162	0.375	47	43	2¼	0.099	0.280	204
14	3½	0.177	0.438	38	44	2¼	0.105	0.270	181
15	4	0.177	0.438	35	45	2¼	0.113	0.280	156
16	4	0.177	0.375	35	46	2½	0.095	0.260	199
17	5	0.177	0.375	27	47	2½	0.099	0.255	183
18	6	0.177	0.375	23	48	2½	0.099	0.280	183
19	7	0.207	0.500	15	49	2½	0.113	0.280	141
20	8	0.207	0.500	13	50	2½	0.113	0.290	141
21	1¼	0.080	0.215	561	51	2½	0.120	0.290	125
22	1¼	0.099	0.255	367	52	2½	0.131	0.280	105
23	1¼	0.099	0.280	367	53	2¾	0.113	0.290	128
24	1½	0.080	0.215	468	54	2¾	0.120	0.285	113
25	1½	0.099	0.255	305	55	3	0.113	0.280	117
26	1½	0.099	0.280	305	56	3¼	0.120	0.290	96
27	1⅝	0.105	0.270	251	57	3¼	0.131	0.280	81
28	1¾	0.084	0.200	364	58	3½	0.131	0.280	75
29	1¾	0.086	0.235	347	59	4	0.120	0.280	78
30	1¾	0.090	0.245	317	60	4	0.131	0.280	65

[A] All dimensions are given in inches.

TABLE 24 Type I, Style 17—Gypsum-Wallboard, Gypsumboard, and Drywall Nails[A]

NOTE 1—Steel wire, flat head, diamond point, round smooth or deformed shank, bright or blued finish.



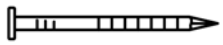


F 1667 NLGWS				
Dash No.	*L*	*D*	*H*	No./lb
01	1⅛	0.092	0.297	470
02	1⅛	0.092	0.375	450
03	1¼	0.092	0.297	420
04	1¼	0.106	0.375	310
05	1¾	0.092	0.375	290

[A]All dimensions are given in inches.

TABLE 25 Type I, Style 17—Gypsum-Wallboard, Gypsumboard, and Drywall Nails[A]

NOTE 1—Steel wire, flat slightly countersunk head, long diamond point, round mechanically deformed shank, bright or blued finish.

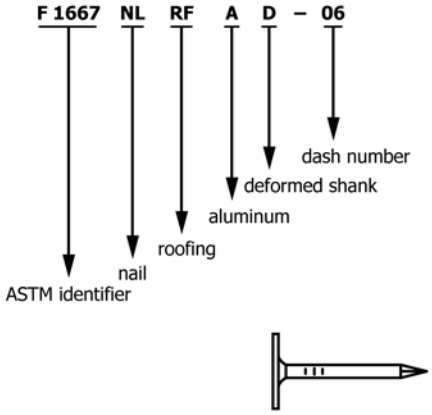


F 1667 NLGWM				
Dash No.	*L*	*D*	*H*	No./lb
01	1⅛	0.099	0.250	380
02	1¼	0.099	0.250	340
03	1⅜	0.099	0.250	320
04	1½	0.099	0.250	290
05	1⅝	0.099	0.250	270

[A]All dimensions are given in inches.

TABLE 26 Type I, Style 18—Aluminium Roofing Nails[A]

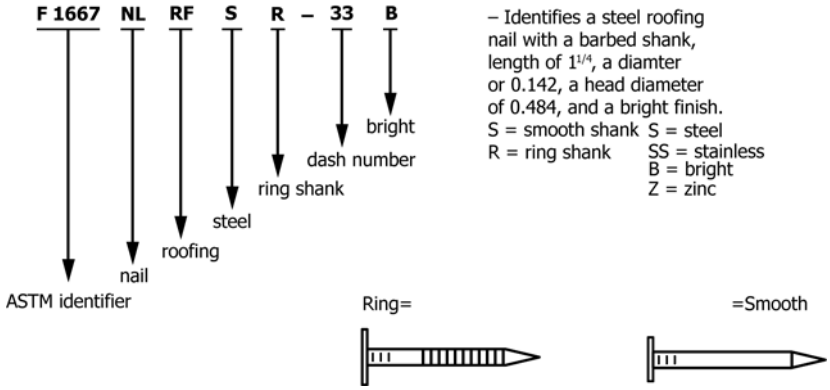
NOTE 1—Aluminum alloy wire, flat head, diamond point, round smooth shank, or, deformed shank.



F1667 NLRFA									
Dash No.	L	D	H	No./lb	Dash No.	L	D	H	No./ lb.
01	¾	0.120	0.438	940	11	1½	0.135	0.438	420
02	¾	0.135	0.438	750	12	1¾	0.135	0.438	370
03	⅞	0.120	0.438	830	13	2	0.135	0.438	340
04	⅞	0.135	0.438	660	14	2½	0.145	0.438	230
05	1	0.120	0.438	700	15	1¼	0.148	0.438	440
06	1	0.135	0.438	600	16	1½	0.148	0.438	360
07	1	0.135	0.438	580	17	1¾	0.148	0.438	330
08	1¼	0.120	0.438	620	18	2	0.148	0.438	290
09	1¼	0.135	0.438	490	19	2½	0.148	0.438	230
10	1½	0.120	0.438	520					

TABLE 27 Type I, Style 18—Steel Roofing Nails[A]

NOTE 1—Carbon steel or stainless steel wire; flat head; diamond point; round, smooth or ring shank; bright or zinc coated, as specified, for hand driving or for use with power tools.



Dash No	L	D	H	No./lb	Dash No.	L	D	H	No./lb
01	¾	0.106	0.375	460	37	1½	0.120	0.438	180
02	¾	0.120	0.438	340	38	1¼	0.120	0.500	160
03	¾	0.135	0.469	270	39	1¼	0.135	0.469	150
04	¾	0.142	0.484	240	40	1½	0.142	0.484	130
05	¾	0.148	0.500	220	41	1½	0.148	0.500	120
06	¾	0.162	0.500	200	42	1½	0.162	0.500	110
07	⅞	0.106	0.375	...	43	1¾	0.106	0.375	220
08	⅞	0.120	0.438	300	44	1¾	0.120	0.438	160
09	⅞	0.120	0.500	250	45	1¾	0.120	0.500	140
10	⅞	0.135	0.469	240	46	1¾	0.135	0.469	130
11	⅞	0.142	0.484	210	47	1¾	0.142	0.484	120
12	⅞	0.148	0.500	190	48	1¾	0.148	0.500	110
13	⅞	0.162	0.500	170	49	1¾	0.162	0.500	92
14	1	0.106	0.281	380	50	¾	0.120	0.375	290
15	1	0.106	0.375	360	51	⅞	0.120	0.375	259
16	1	0.120	0.438	270	52	1	0.120	0.375	232
17	1	0.120	0.500	220	53	1¼	0.120	0.375	209
18	1	0.135	0.469	210	54	1½	0.120	0.375	179
19	1	0.142	0.484	190	55	1¾	0.120	0.375	157
20	1	0.148	0.500	170	56	2	0.120	0.375	156
21	1	0.162	0.500	150	57	2	0.120	0.438	156
22	1⅛	0.106	0.375	320	58	2½	0.120	0.375	125
23	1⅛	0.120	0.438	240	59	2½	0.120	0.438	125
24	1⅛	0.135	0.469	190	60	3	0.120	0.375	104
25	1⅛	0.142	0.484	170	61	3	0.120	0.438	104
26	1⅛	0.148	0.500	160	62	3½	0.120	0.375	89
27	1⅛	0.162	0.500	140	63	3½	0.120	0.438	89
28	1¼	0.106	0.375	300	64	4	0.120	0.375	78
29	1¼	0.120	0.312	240	65	4	0.120	0.438	78
30	1¼	0.120	0.438	220	66	3	0.135	0.375	72
31	1¼	0.120	0.500	...	67	3½	0.135	0.375	62
32	1¼	0.135	0.469	180	68	4	0.148	0.406	46
33	1¼	0.142	0.484	160	69	4½	0.148	0.406	40
34	1¼	0.148	0.500	140					
35	1¼	0.162	0.500	120					
36	1½	0.106	0.375	...					

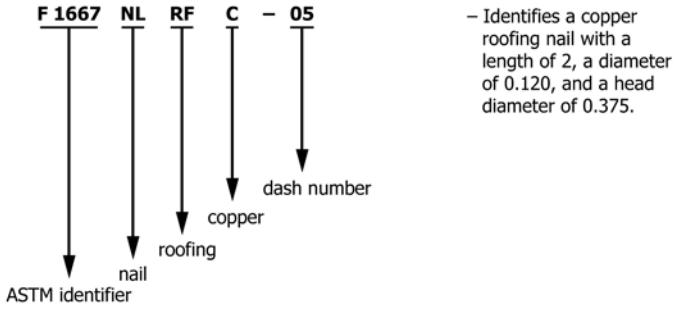
Stainless Steel

Dash No	L	D	H	No./lb	Dash No.	L	D	H	No./lb
70	1	0.120	0.343	212	78	1½	0.120	0.375	180
71	1¼	0.120	0.343	199	79	1¾	0.120	0.375	160
72	1½	0.120	0.343	170	80	¾	0.135	0.375	281
73	1¾	0.120	0.343	140	81	⅞	0.135	0.375	246
74	¾	0.120	0.375	300	82	1	0.135	0.375	212
75	⅞	0.120	0.375	250	83	1¼	0.135	0.375	166
76	1	0.120	0.375	228	84	1½	0.135	0.375	139
77	1¼	0.120	0.375	202	85	1¾	0.135	0.375	126

[A] All dimension are given in inches.

TABLE 28 Type I, Style 18—Copper-Clad Roofing Nails[A]

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

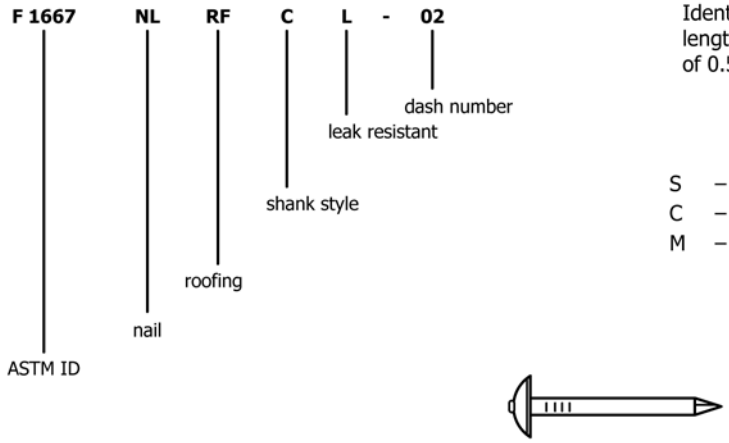


F 1667 NLRFC											
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.120	0.375	280	04	5d	1¾	0.120	0.375	160
02	3d	1¼	0.120	0.375	220	05	6d	2	0.120	0.375	140
03	4d	1½	0.120	0.375	190	06	7d	2¼	0.120	0.375	130

[A]All dimensions are given in inches.

TABLE 29 Type I, Style 18—Umbrella Head Roofing Nails[A]

NOTE 1—Carbon steel wire; leak-resistant umbrella head; diamond point; round smooth or deformed shank; zinc coated.

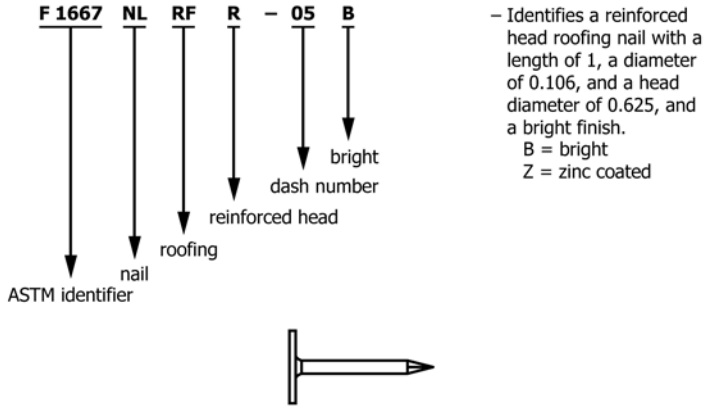


Dash. No.	L	D	H	No./Lb
1	1¾	0.135	0.500	110
2	2	0.135	0.500	98
3	2	0.135	0.750	73
4	2	0.148	0.750	62
5	2	0.148	0.813	60
6	2½	0.135	0.750	64
7	2½	0.148	0.750	53
8	2½	0.148	0.813	53
9	3	0.148	0.813	47

[A]All dimensions are given in inches.

TABLE 30 Type I, Style 18—Steel Reinforced Head Roofing Nails[A]

NOTE 1—Carbon steel wire, flat reinforced head, needle or diamond point, round smooth shank, bright or zinc coated, as specified. (For prepared felt roofing.)

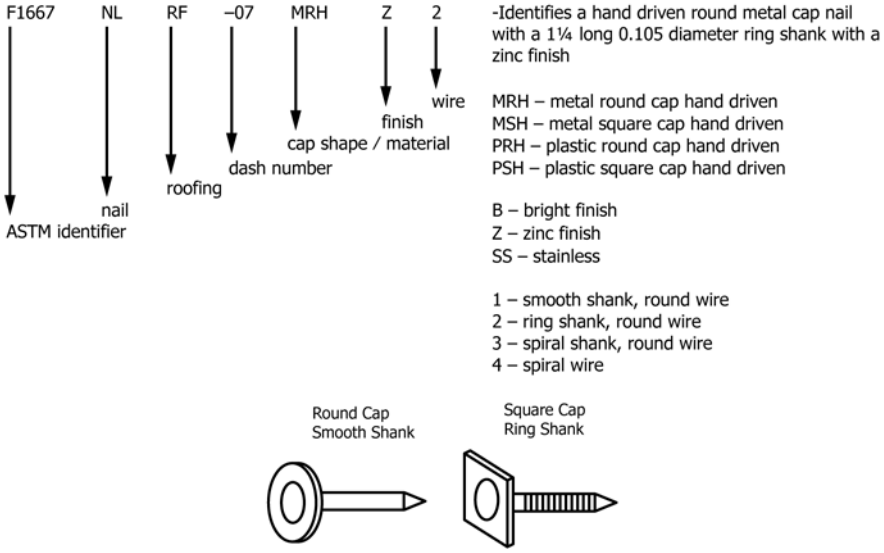


F 1667 NLRFR									
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	¾	0.106	0.625	190	06	1	0.120	0.625	150
02	¾	0.120	0.625	170	07	1⅛	0.106	0.625	170
03	⅞	0.106	0.625	180	08	1⅛	0.120	0.625	140
04	⅞	0.120	0.625	160	09	1¼	0.106	0.625	160
05	1	0.106	0.625	170	10	1¼	0.106	0.625	140

[A]All dimensions are given in inches.

TABLE 31 Type I, Style 18—Cap Nail-Hand Driven Roofing Nails[A]

NOTE 1—Hand-driven cap nails shall have a 1 in. diameter round plastic or steel cap with a cap diameter tolerance of ± 0.063 in., or a flat or domed square steel cap with an edge dimension 1 ± 0.063 in. Minimum thickness of the outside edge of plastic caps shall be 0.035 in. Minimum thickness of metal caps shall be 0.030 in.† Nails are steel or stainless steel; with a diamond point; smooth or deformed shanks from round or spiral wire; and bright or zinc finish. Nails with metal caps shall both be bright or both have zinc finish. All hand-driven cap nails are packaged as integral nail-cap units.



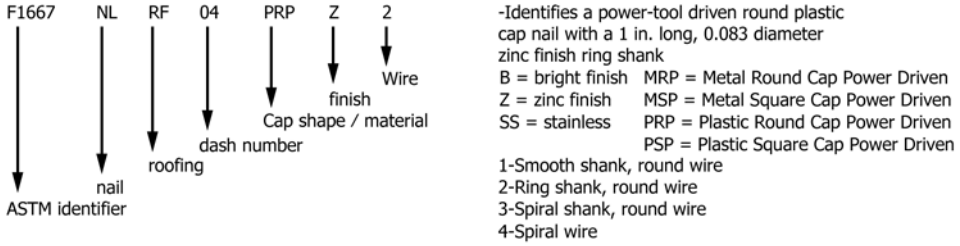
F1667 NLRFHD				
			No/Lb[B]	
Dash No.	L	D	Steel	Plastic
		Hand Driven		
01	½	0.105	130	—
02	⅝	0.105	120	—
03	¾	0.105	115	362
04	⅞	0.105	110	339
05	1	0.105	110	323
06	1⅛	0.105	110	—
07	1¼	0.105	100	269
08		not used		
09		not used		
10		not used		
11		not used		
12	3	0.106	70	118
13	3	0.120	50	70
14	1½	0.105	96	219
15	1½	0.120	85	175
16	1¾	0.105	94	195
17	1¾	0.120	80	152
18	2	0.105	90	169
19	2	0.120	74	131
20	2½	0.105	80	138
21	2½	0.120	61	95
22	3½	0.148	53	—
23	4	0.148	32	—
24	5	0.162	25	—
25	6	0.162	20	—
26	8	0.162	13	—

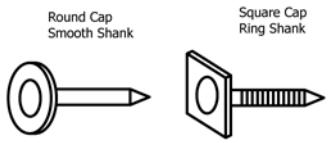
[A]All dimensions are given in inches.
[B]Dashes (—) indicate that the fastener size is not a standard size.

TABLE 32 Type I, Style 18—Cap Nail Power-Tool Driven Roofing Nails[A]

NOTE 1—Power-tool driven cap nails have a 1 in. diameter plastic or steel cap with a cap diameter tolerance of ± 0.063 in. Minimum thickness of the outside edge of plastic caps is 0.035 in. Minimum thickness of metal caps is 0.010 in. Nails are steel or stainless steel; with a diamond point; smooth or deformed shanks from round or spiral wire; and bright or zinc finish. Nails with metal caps shall both be bright or both have zinc finish. With power-tool driven cap nails, nails and caps may be packaged together or separately. Regardless of packaging, nails and caps are separately loaded into application tools with the nail being driven through the cap at point of application.

The nails used in the power driven cap nail systems are not considered roofing nails until they are combined with the cap.





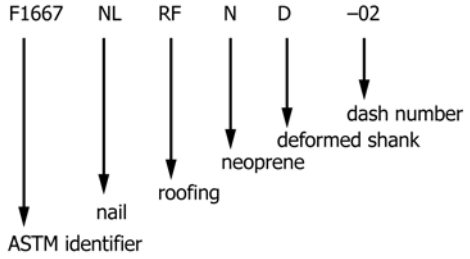
F1667 NLRFPD

Dash No.	L	D	No/Lb[B] Steel	No/Lb[B] Plastic
		Power Driven		
01	¾	0.120	185	268
02	⅞	0.083	200	400
03	⅞	0.120	168	240
04	1	0.083	196	355
05	1	0.120	154	215
06	1¼	0.080	—	320
07	1¼	0.083	190	310
08	1¼	0.120	140	190
09	1½	0.080	—	290
10	1½	0.083	183	280
11	1½	0.120	126	165
12	1¾	0.083	176	265
13	1¾	0.120	106	140
14	2	0.083	170	250
15	2	0.091	—	230
16	2	0.120	82	114

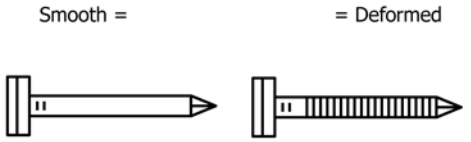
[A]All dimensions are given in inches.
[B]Dashes (—) indicate that the fastener size is not a standard size.

TABLE 33 Type I, Style 18—Washered-Aluminum Roofing Nails[A]

NOTE 1—Aluminum alloy wire, flat head with neoprene washer (for aluminum roofing sheet), diamond point, round, smooth, or mechanically deformed shank, as specified.



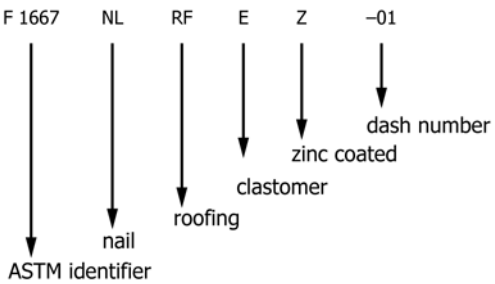
-Identifies an aluminum roofing nail with a neoprene washer, a length of 2, a diameter of 0.135 and a head diameter of 0.438



F1667 NLRFNS					F1667 NLRFND				
Dash No.	L	D	H	No./lb.	Dash No.	L	D	H	No./lb.
01	1¾	0.135	0.438	320	01	1¾	0.145	0.438	290
02	2	0.135	0.438	280	02	2	0.145	0.438	260
03	2¼	0.135	0.438	240	03	2¼	0.145	0.438	230
04	2½	0.135	0.438	210	04	2½	0.145	0.438	210

[A]All dimensions are given in inches.

TABLE 34 Type I, Style 18—Washered-Steel Roofing Nails



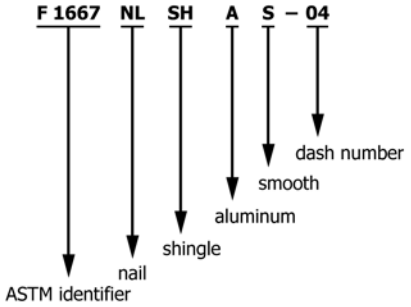
–Identifies zinc coated, ring shank roofing nail with a elastomer washer, a length of 1¾, a diameter of 0.135 and a head diameter of 0.438

Z – zinc coated
SS – Stainless
S – smooth shank

F1667 NLRFE									
Dash No.	L	D	H	No./lb.	Dash No.	L	D	H	No./lb.
01	1½	0.135	0.375	118	09	2	0.135	0.438	99
02	1¾	0.135	0.375	107	10	2½	0.135	0.438	80
03	2	0.135	0.375	96	11	3	0.135	0.438	77
04	2¼	0.135	0.375	91	12	3½	0.148	0.375	50
05	2½	0.135	0.375	80	13	4	0.148	0.406	45
06	3	0.135	0.375	66	14	4½	0.148	0.406	39
07	1½	0.135	0.438	129	15	4½	0.148	0.438	39
08	1¾	0.135	0.438	109					

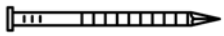
TABLE 35 Type I, Style 19—Shingle Nails[A]

NOTE 1—Aluminum Alloy wire, flat head, diamond point, round, smooth or mechanically deformed shank, as specified.



– Identifies an aluminum shingle nail, smooth shank, with a length of 1¼, a diameter of 0.113, and a head diameter of 0.312.
D = deformed shank
S = smooth shank

Deformed Shank =



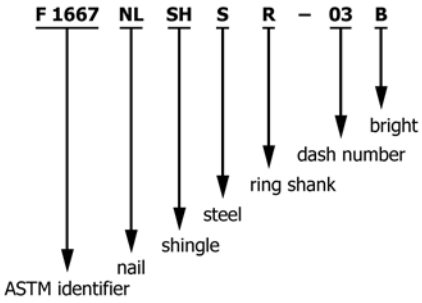
= Smooth Shank

F 1667 NLSHAD					F 1667 NLSHAS				
Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	1¼	0.101	0.191	1060	01	⅞	0.099	0.281	1310
02	1½	0.101	0.191	860	02	1¼	0.080	0.219	1480
03	1¾	0.105	0.191	720	03	1¼	0.099	0.281	1010
04	2	0.105	0.191	610	04	1¼	0.113	0.312	780
05	2¼	0.113	0.200	180	05	1½	0.113	0.312	660
06	2½	0.113	0.200	130	06	1¾	0.113	0.312	610

[A]All dimensions are given in inches.

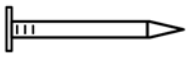
TABLE 36 Type I, Style 19—Steel Shingle Nails[A]

NOTE 1—Carbon steel wire, flat head, diamond point, round, smooth or ring shank, bright or zinc coated, as specified.



– Identifies a steel shingle nail with a ring shank, a length of 1¾, a diameter of 0.113, a head diameter of 0.406, and bright finish.
S = smooth shank
R = ring shank
B = bright
Z = zinc coated

Smooth =



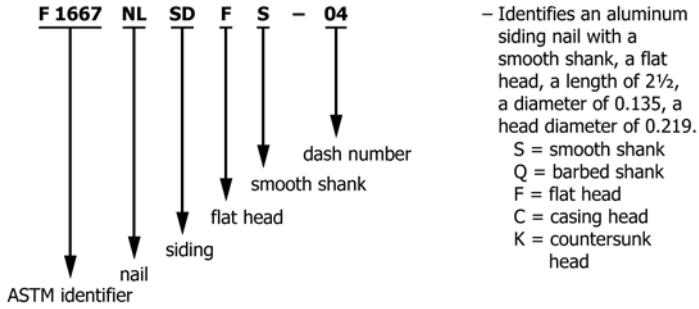
= Ring

F 1667 NLSHSS						F 1667 NLSHNSB				
Dash No.	*S*	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	No./lb
01	3d	1¼	0.092	0.250	410	01	1¼	0.113	0.406	250
02	3.5d	1⅜	0.099	0.281	310	02	1½	0.113	0.406	210
03	4d	1½	0.106	0.281	260	03	1¾	0.113	0.406	180
. . .	. . .	. . .	. . .	. . .	. . .	04	2	0.113	0.406	162

[A]All dimensions are given in inches.

TABLE 37 Type I, Style 20—Siding Nails[A]

NOTE 1—Aluminum alloy wire, flat head (insulated), casing or countersunk head (wood), as specified, diamond point, round smooth shank or, when specified, square-barbed shank.



F 1667 NLSDF				
Dash No.	*L*	*D*	*H*	No./lb
01	1½	0.113	0.219	700
02	1½	0.113	0.312	660
03	2	0.113	0.219	490
04	2½	0.135	0.219	290

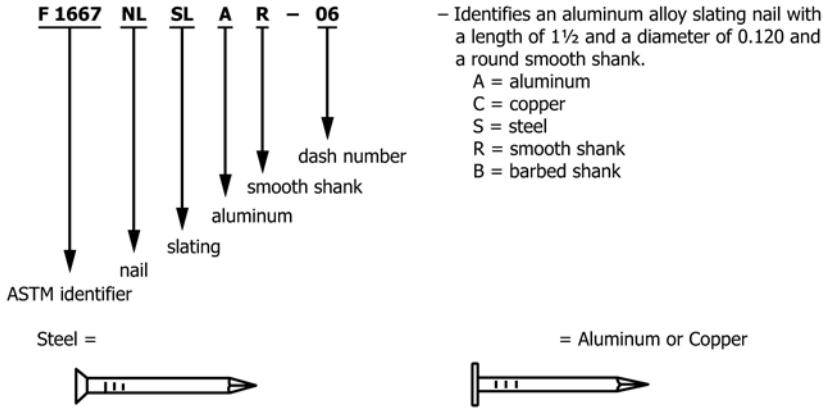
F 1667 NLSDC					
Dash No.	*S*	*L*	*D*	*H*	No./lb
01	6d	1⅞	0.106	0.141	600
02	7d	2⅛	0.113	0.141	470
03	8d	2⅜	0.128	0.156	320
04	9d	2⅝	0.148	0.189	200

F 1667 NLSDK					
Dash No.	*S*	*L*	*D*	*H*	No./lb
01	6d	1⅞	0.106	0.266	600
02	7d	2⅛	0.113	0.266	470
03	8d	2⅜	0.128	0.297	320
04	9d	2⅝	0.148	0.312	200

[A]All dimensions are given in inches.

TABLE 38 Type I, Style 21—Slating Nails[A]

NOTE 1—Aluminum alloy, copper or steel wire as specified. Aluminum and copper nails shall have a flat head (0.312 to 0.375–in. diameter), diamond point, and round smooth shank or, when specified, square-barbed shank. Steel nails shall have a flat, slightly countersunk head, diamond point, round smooth shank, zinc coated.



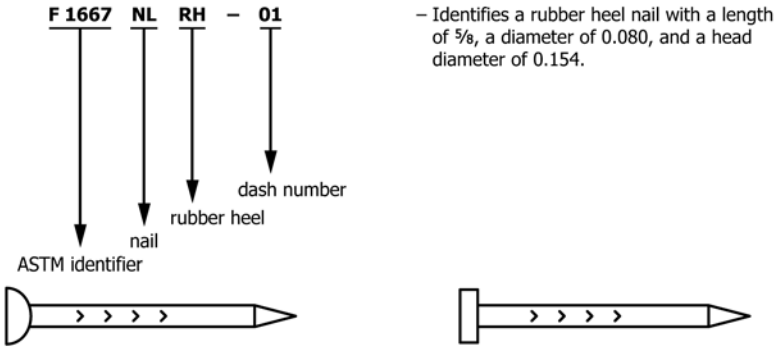
F 1667 NLSLA			
Dash No.	*L*	*D*	No./lb
01	⅞	0.106	1170
02	1	0.106	1150
03	1¼	0.106	670
04	1¼	0.120	620
05	1¼	0.135	520
06	1½	0.120	530
07	1½	0.135	430
F 1667 NLSLC			
01	1	0.109	290
02	1¼	0.109	240
03	1¼	0.120	210
04	1¼	0.135	160
05	1½	0.109	200
06	1½	0.120	160
07	1½	0.135	130
08	1¾	0.135	120
09	2	0.135	110

F 1667 NLSLS					
Dash No.	*S*	*L*	*D*	*H*	No./lb
01	2d	1	0.106	0.312	420
02	3d	1¼	0.128	0.375	220
03	4d	1½	0.128	0.375	190
04	5d	1¾	0.135	0.406	140
05	6d	2	0.148	0.438	100

[A]All dimensions are given in inches.

TABLE 39 Type I, Style 22—Rubber Heel Nails[A]

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

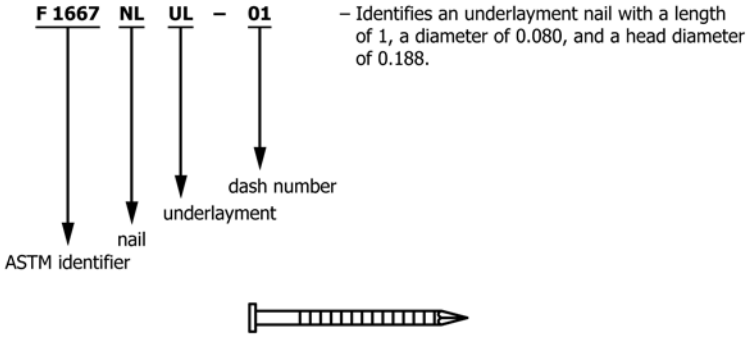


Dash No.	*L*	*D*	*H*	Dash No.	*L*	*D*	*H*
01	5/8	0.080	0.154	04	1	0.080	0.154
02	3/4	0.080	0.154	05	1 1/8	0.080	0.154
03	7/8	0.080	0.154	06	1 1/4	0.080	0.154

[A]All dimensions are given in inches.

TABLE 40 Type I, Style 23—Underlayment Nails[A]

NOTE 1—Steel wire, flat or flat, slightly countersunk head, diamond point, round, mechanically deformed shank, bright finish.

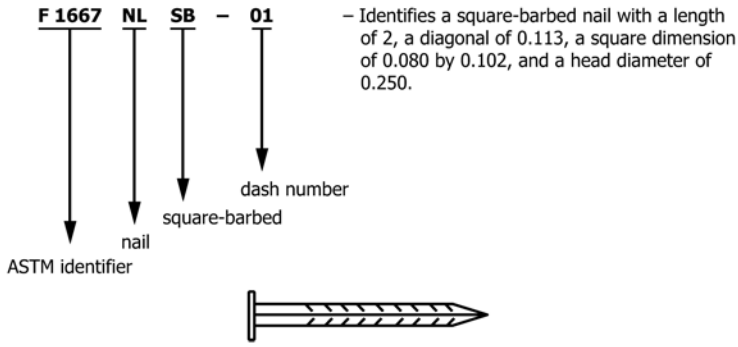


Dash No.	*L*	*D*	*H*	No./lb	Dash No.	*L*	*D*	*H*	*S*	No./lb
01	1	0.080	0.188	. . .	07	1 1/2	0.099	0.250	. . .	330
02	1 1/4	0.080	0.188	600	08	1 5/8	0.099	0.250	. . .	300
03	1 1/4	0.099	0.250	400	09	1 3/4	0.099	0.250	. . .	280
04	1 3/8	0.080	0.188	540	10	1 7/8	0.106	0.266	6d	170
05	1 3/8	0.099	0.250	360	11	2 1/8	0.109	0.266	7d	170
06	1 1/2	0.080	0.188	500	12	2 3/8	0.113	0.297	8d	140

[A]All dimensions are given in inches.

TABLE 41 Type I, Style 24—Barbed Nails[A]

NOTE 1—Steel wire, flat head, diamond point, square barbed shank, bright finish.

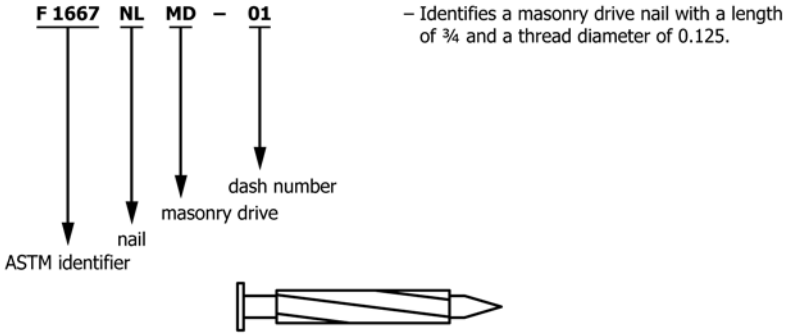


Dash No.	*S*	Style	*L*	Diagonal	Square Dimension	*H*	No./lb
01	6d	common	2	0.113	0.080 × 0.102	0.250	200
02	8d	common	2½	0.131	0.092 × 0.120	0.266	120
03	10d	common	3	0.148	0.105 × 0.135	0.281	84
04	16d	common	3½	0.162	0.113 × 0.149	0.312	59
05	20d	common	4	0.192	0.135 × 0.170	0.375	39
06	6d	box	2	0.099	0.072 × 0.089	0.250	260
07	8d	box	2½	0.113	0.080 × 0.102	0.266	150
08	6d	finish	2	0.092	0.062 × 0.083	0.124	320
09	8d	finish	2½	0.099	0.072 × 0.089	0.131	230
10	. . .	truss	1½	0.131	0.092 × 0.120	0.281	190

[A]All dimensions are given in inches.

TABLE 42 Type I, Style 25—Masonry Drive Nails[A]

NOTE 1—Hardened steel, flat head, cone pilot point, round, high pitch, multiple-start threaded shank, bright finish. When specified, masonry drive nails shall be proof lead tested.

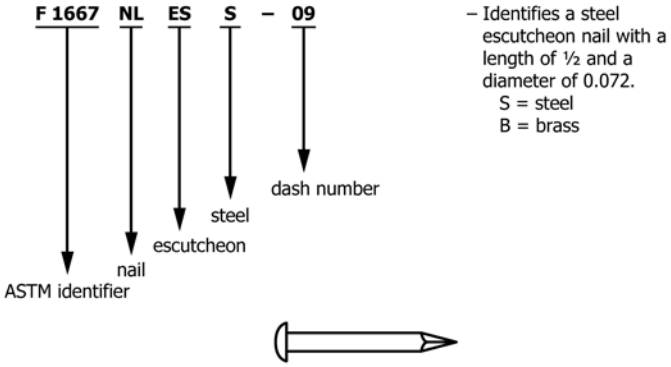


Dash No.	*S*	*L*	Thread Diameter	Dash No.	*S*	*L*	Thread Diameter
01	3/32	¾	0.125	4	3/16	1¼	0.215
02	⅛	¾	0.156	5	¼	1½	0.258
03	5/32	1	0.188	6	5/16	2	0.330

[A]All dimensions are given in inches.

TABLE 43 Type I, Style 26—Escutcheon Nails[A]

NOTE 1—Steel or brass wire, as specified, oval head, diamond point, round smooth shank.

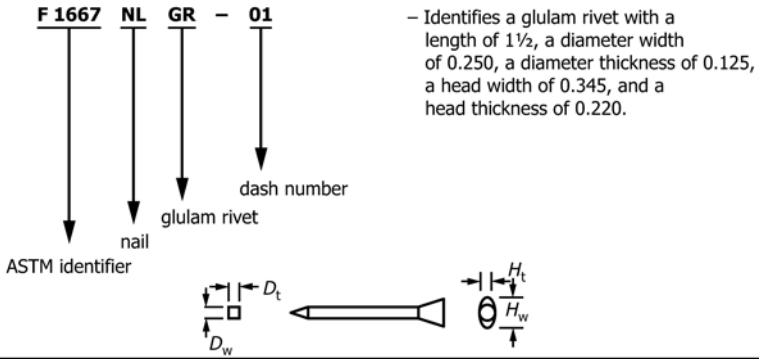


Dash No.	L	D	Dash No.	L	D	Dash No.	L	D
01	¼	0.035	14	¾	0.072	27	2	0.080
02	¼	0.048	15	¾	0.080	28	2	0.092
03	¼	0.062	16	¾	0.092	...	...	...
04	¼	0.072	17	1	0.048	...	...	...
05	¼	0.080	18	1	0.062	...	...	...
06	½	0.035	19	1	0.072	...	...	...
07	½	0.048	20	1	0.080	...	...	...
08	½	0.062	21	1	0.092	...	...	...
09	½	0.072	22	1¼	0.062	...	...	...
10	½	0.080	23	1¼	0.080	...	...	...
11	½	0.092	24	1¼	0.092	...	...	...
12	¾	0.048	25	1½	0.080	...	...	...
13	¾	0.062	26	1½	0.092	...	...	...

[A]All dimensions are given in inches.

TABLE 44 Type I, Style 27—Glulam Rivet[A]

NOTE 1—Hardened steel, flat countersunk head, diamond point, smooth shank, zinc coated, as specified.

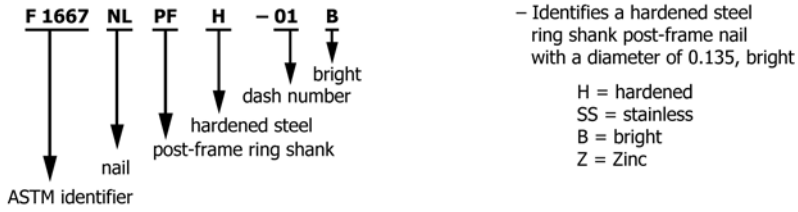


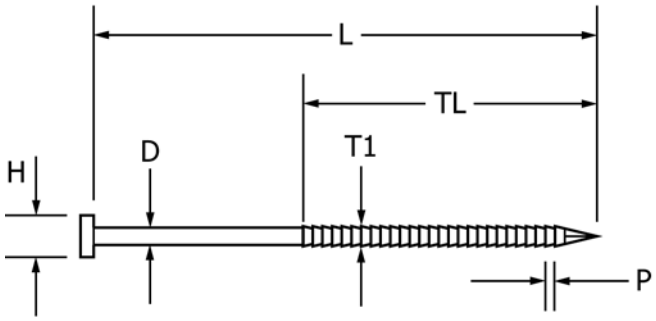
Dash No.	L	D_{width}[B]	$D_{thickness}$[B]	H_{width}[B]	$H_{thickness}$[B]	No./lb
01	1½	0.250	0.125	0.345	0.220	59
02	2½	0.250	0.125	0.345	0.220	34
03	3½	0.250	0.125	0.345	0.220	24

[A]All dimensions are given in inches.
[B]Tolerances: D_w – ±0.010, D_t – ±0.005, H_w – ±0.010, and H_t – ±0.010.

TABLE 45 Type I, Style 28—Post-Frame Ring-Shank Nails[A]

NOTE 1—Carbon steel, hardened carbon steel or stainless steel, flat head, diamond point, round, ring shank, bright or zinc-coated as specified. Nails shall comply with the supplementary requirements of S1 and Table S1.1or Table S1.2.





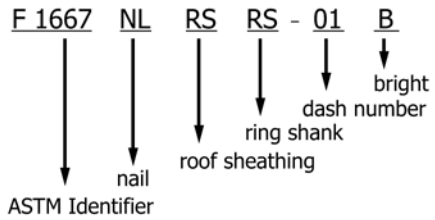
Dash No.	*L*	*D*	*H*	T1–D max	T1–D min	TL min	P_{max}	P_{min}	Root Diameter[B]
01	3	0.135	0.313	.010	.005	2¼	.077	.050	0.128
02	3	0.148	0.313	.010	.005	2¼	.077	.050	0.140
03	3	0.177	0.375	.010	.005	2¼	.077	.050	0.169
04	3½	0.135	0.313	.010	.005	2¼	.077	.050	0.128
05	3½	0.148	0.313	.010	.005	2¼	.077	.050	0.140
06	3½	0.177	0.375	.010	.005	2¼	.077	.050	0.169
07	3½	0.200	0.469	.010	.005	2¼	.077	.050	0.193
08	4	0.148	0.313	.010	.005	2¼	.077	.050	0.140
09	4	0.177	0.375	.010	.005	2¼	.077	.050	0.169
10	4	0.200	0.469	.010	.005	2.¼	.077	.050	0.193
11	4	0.207	0.469	.010	.005	2¼	.077	.050	0.199
12	4½	0.148	0.313	.010	.005	3	.077	.050	0.140
13	4½	0.177	0.375	.010	.005	3	.077	.050	0.169
14	4½	0.200	0.469	.010	.005	3	.077	.050	0.193
15	4½	0.207	0.469	.010	.005	3	.077	.050	0.199
16	5	0.177	0.375	.010	.005	3	.077	.050	0.169
17	5	0.200	0.469	.010	.005	3	.077	.050	0.193
18	5	0.207	0.469	.010	.005	3	.077	.050	0.199
19	6	0.177	0.375	.010	.005	3	.077	.050	0.169
20	6	0.200	0.469	.010	.005	3	.077	.050	0.193
21	6	0.207	0.469	.010	.005	3	.077	.050	0.199
22	8	0.177	0.375	.010	.005	3	.077	.050	0.169
23	8	0.200	0.469	.010	.005	3	.077	.050	0.193
24	8	0.207	0.469	.010	.005	3	.077	.050	0.199

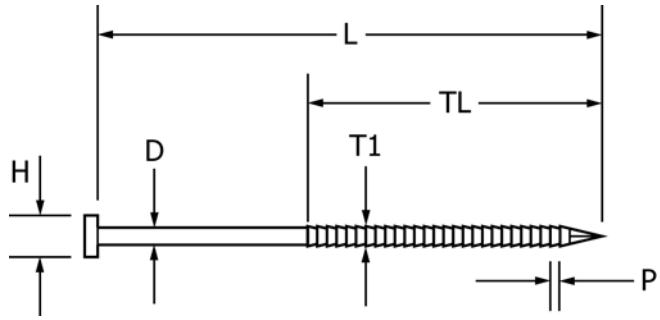
L = length, in.,
H = head diameter, in.,
TL = length of threaded shank, in.,
max = maximum acceptable value (not subject to tolerances),
min = minimum acceptable value (not subject to tolerances),
D = shank diameter, in.,
T1 = crest diameter, in., and
P = pitch, or spacing of threads, in.

[A]All dimensions are given in inches.
[B] Root diameter is a calculated value and is not specified as a dimension to be measured.

TABLE 46 Type I, Style 28—Roof Sheathing Ring Shank Nails[A,B,C]

NOTE 1—Flat head, diamond point, round, mechanically deformed shank, carbon steel (bright or zinc-coated) or stainless steel as specified.



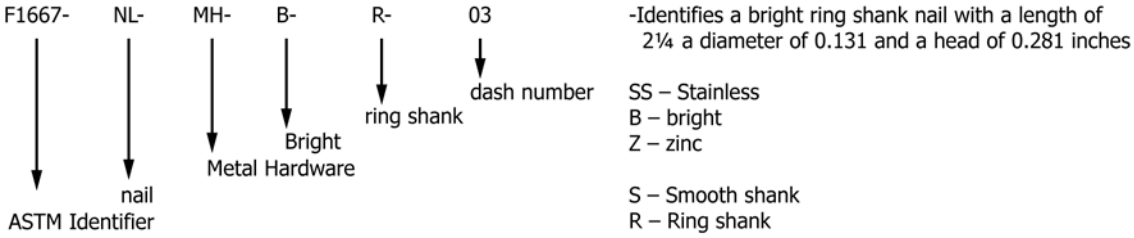


Dash No.	*L*	*D*	*H*	T1–D max	T1–D min	TL[D] min	P_{max}	P_{min}
01	2⅜	0.113	0.281	.012	.005	1½	.077	.050
02	2½	0.120	0.281	.012	.005	1½	.077	.050
03	2½	0.131	0.281	.012	.005	1½	.077	.050
04	3	0.120	0.281	.012	.005	1½	.077	.050
05	3	0.131	0.281	.012	.005	1½	.077	.050

L = length, in.,
H = head diameter, in.,
TL = length of threaded shank, in.,
max = maximum acceptable value (not subject to tolerances),
min = minimum acceptable value (not subject to tolerances),
D = shank diameter, in.,
T1 = crest diameter, in., and
P = pitch, or spacing of threads, in.

[A] All dimensions are given in inches.
[B] Nails shall comply with the supplementary requirements of S1 and Table S1.1.
[C] Nails identified as "F1667 NLRSRS" must meet all applicable requirements of F1667 for the specified roof sheathing ring shank nail.
[D] Individual rings shall be approximately frustums, circular in transverse cross section, axially symmetric, and formed on the nail axis such that the minor diameter is closer to the nail point and the major diameter is closer to the nail head. The thread shall be continuous over the minimum thread length, TL_{min}.

TABLE 47 Type I, Style 29 — Metal Hardware Nails[A,B,C]

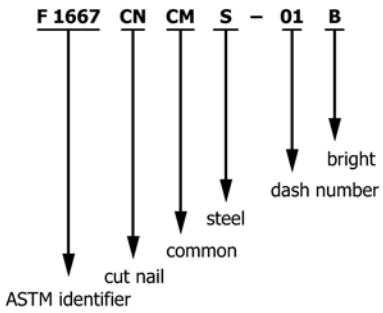


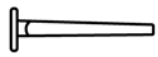
Dash No.	L	D	H
01	1¼	0.131	0.281
02	1½	0.131	0.281
03	2¼	0.131	0.281
04	2⅜	0.131	0.281
05	2½	0.131	0.281
06	1¼	0.148	0.281
07	1½	0.148	0.281
08	2½	0.148	0.281
09	3	0.148	0.281
10	3½	0.148	0.281
11	2½	0.162	0.281
12	3	0.162	0.281
13	3½	0.162	0.281

[A]All dimensions are given in inches.
[B]Nails shall comply with the supplementary requirements of S1 and Table S1.1
[C]Nail heads thickness measured at the rim of the head shall be 0.040 – 0.070 inches and does not include any raised lettering.

TABLE 48 Type II, Style 1—Common Cut Nails[A]

NOTE 1—Steel or copper, flat head, bright finish.



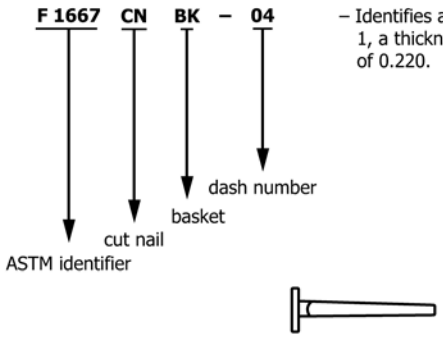


Dash No.	S	L	Dash No.	S	L	Dash No.	S	L
01	2d	1	07	7d	2¼	13	20d	4
02	3d	1¼	08	8d	2½	14	30d	4½
03	3½d	1⅜	09	9d	2¾	15	40d	5
04	4d	1½	10	10d	3	16	50d	5½
05	5d	1¾	11	12d	3¼	17	60d	6
06	6d	2	12	16d	3½	. . .	. . .	. . .

[A]All dimensions are given in inches.

TABLE 49 Type II, Style 2—Basket Cut Nails[A]

NOTE 1—Steel, flat head, bright finish.

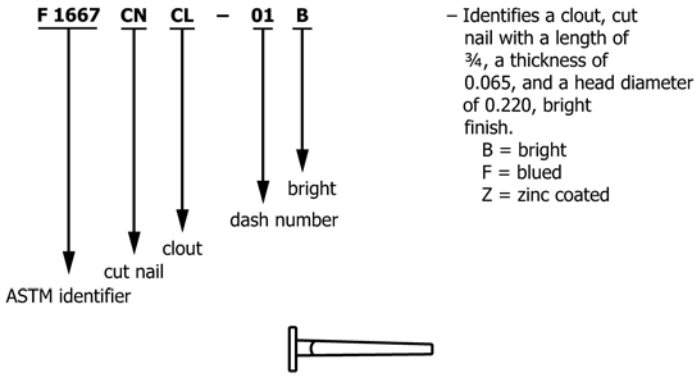


Dash No.	*L*	*T*	*H*	No./lb
01	5/8	0.049	0.180	2080
02	3/4	0.049	0.180	1500
03	7/8	0.058	0.203	1060
04	1	0.058	0.220	930

[A]All dimensions are given in inches.

TABLE 50 Type II, Style 3—Clout Cut Nails[A]

NOTE 1—Steel, flat head, bright finish, blued or zinc coated, as specified (see 5).

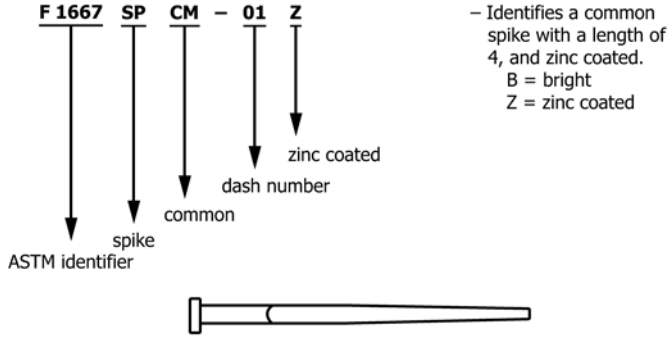


Dash No.	*L*	*T*	*H*	No./lb
01	3/4	0.065	0.220	960
02	7/8	0.0685	0.238	770
03	1	0.072	0.259	580
04	1 1/4	0.0775	0.284	380

[A]All dimensions are given in inches.

TABLE 51 Type III, Style 1—Common Spikes[A]

NOTE 1—These spikes shall be sheared from medium carbon sheet steel and shall have a wedged-shaped shank with a square point end narrower than the upset head end. They shall have a flat head, bright finish, or zinc coated, as specified.

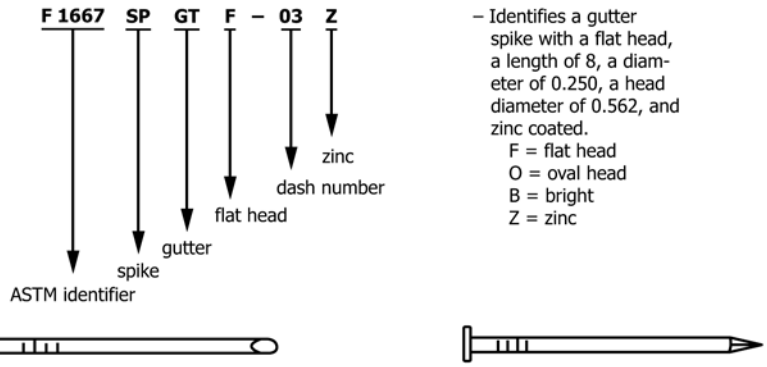


Dash No.	*S*	*L*	Dash No.	*S*	*L*
01	20d	4	05	60d	6
02	30d	4½	06	80d	7
03	40d	5	07	100d	8
04	50d	5½	. . .	. . .	. . .

[A]All dimensions are given in inches.

TABLE 52 Type III, Style 2—Gutter Spikes[A]

NOTE 1—Steel wire, oval head, chisel point, flat head, diamond point, bright finish or zinc coated, as specified.



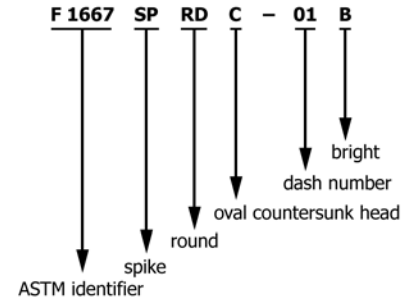
F 1667 SPGTF			
Dash No.	*L*	*D*	*H*
01	6½	0.250	0.562
02	7	0.250	0.562
03	8	0.250	0.562
04	8½	0.250	0.562
05	9	0.250	0.562
06	10	0.250	0.562
07	10½	0.250	0.562

F 1667 SPGTO			
Dash No.	*L*	*D*	*H*
01	6½	0.250	0.531
02	7	0.250	0.531
03	8	0.250	0.531
04	8½	0.250	0.531
05	9	0.250	0.531
06	10	0.250	0.531
07	10½	0.250	0.531

[A]All dimensions are given in inches.

TABLE 53 Type III, Style 3—Round Spikes[A]

NOTE 1—Steel wire, oval countersunk head, chisel point, flat head, diamond point, bright finish or zinc coated, as specified.



– Identifies a round spike with an oval head, a length of 5, a shank diameter of 0.2625, a head diameter of 0.531, and a bright finish.
C = oval countersunk head
F = flat head
B = bright
Z = zinc coated

Over Head CS =

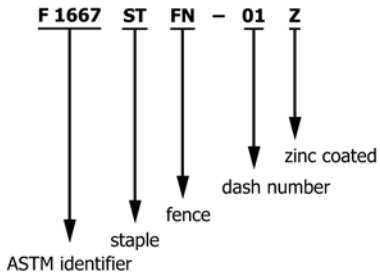
= Flat Head

	F1667 SPRDC[A]				F1667 SPRDF[A]			
Dash No.	*S*	*L*	*D*	*H*	Dash No.	*L*	*D*	*H*
01	40d	5	0.2625	0.531	01	8	0.312	0.625
02	50d	5½	0.283	0.562	02	8	0.312	0.750
03	60d	6	0.283	0.562	03	9	0.312	0.750
04	. . .	7	0.312	0.625	04	10	0.312	0.750
. . .	. . .	. . .	. . .	. . .	05	8	0.375	0.750

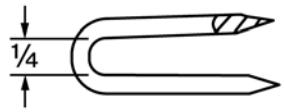
[A]All dimensions are given in inches.

TABLE 54 Type IV, Style 1—Fence Staples[A]

NOTE 1—Steel wire, bright finish or zinc coated, as specified.



– Identifies a fence staple with a length of ⅞, a diameter of 0.1483, and zinc coated.
B = bright
Z = zinc

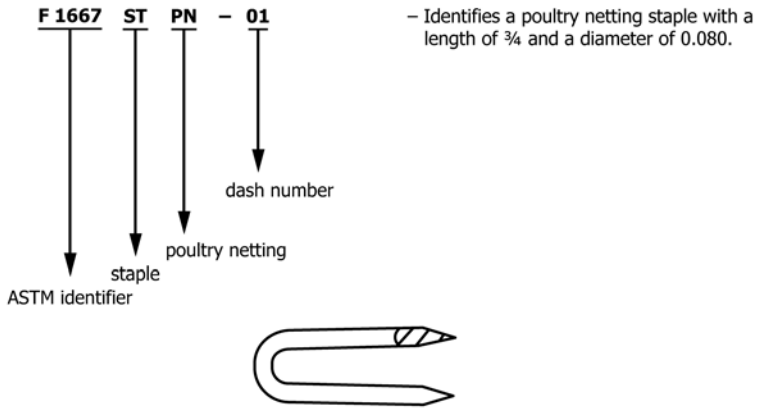


Dash No.	*L*	*D*	No./lb
01	⅞	0.1483	120
02	1	0.1483	110
03	1⅛	0.1483	97
04	1¼	0.1483	87
05	1½	0.1483	72
06	1¾	0.1483	61

[A]All dimensions are given in inches.

TABLE 55 Type IV, Style 2—Poultry Netting Staples[A]

NOTE 1—Steel wire, zinc coated.

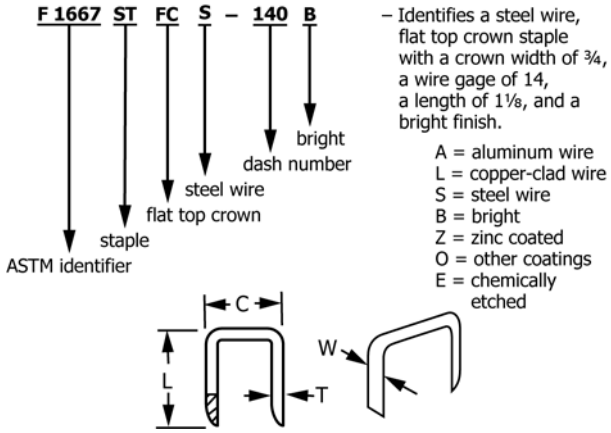


Dash No.	*L*	*D*	No./lb
01	¾	0.080	500

[A]All dimensions are given in inches.

TABLE 56 Type IV, Style 3—Flat Top Crown Staples[A]

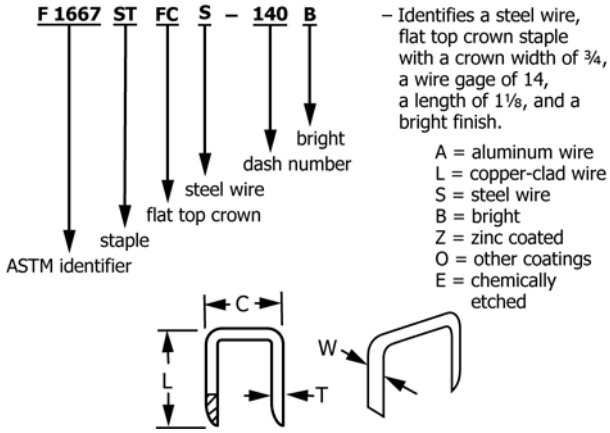
NOTE 1—Steel wire, aluminum alloy wire, bright finish, zinc coated, other coatings or chemically etched, as specified. (For use in power tools for fastening wood and other materials to wood.)



F1667 STFC

Dash No.	C	G	L	Dash No.	C	G	L
01	3/16	18	3/8	51	7/16	14	1½
02	3/16	18	½	52	7/16	14	1⅝
03	3/16	18	⅝	53	7/16	14	1¾
04	3/16	18	¾	54	7/16	14	1⅞
05	3/16	18	⅞	55	7/16	14	2
06	3/16	18	1	56	7/16	14	2¼
07	3/16	18	1⅛	57	7/16	14	2½
08	3/16	18	1¼	58	7/16	15	⅜
09	⅜	14	⅜	59	7/16	15	½
10	⅜	14	½	60	7/16	15	⅝
11	⅜	14	⅝	61	7/16	15	¾
12	⅜	14	¾	62	7/16	15	⅞
13	⅜	14	⅞	63	7/16	15	1
14	⅜	14	1⅛	64	7/16	15	1⅛
15	⅜	14	1¼	65	7/16	15	1¼
16	⅜	14	1⅜	66	7/16	15	1⅜
17	⅜	14	1½	67	7/16	15	1½
18	⅜	14	1⅝	68	7/16	15	1⅝
19	⅜	14	1⅝	69	7/16	15	1¾
20	⅜	16	1¾	70	7/16	15	1⅞
21	⅜	16	½	71	7/16	15	2
22	⅜	16	⅝	72	7/16	15	2¼
23	⅜	16	¾	73	7/16	15	2½
24	⅜	16	⅞	74	7/16	16	⅜
25	⅜	16	1⅛	75	7/16	16	½
26	⅜	16	1¼	76	7/16	16	⅝
27	⅜	16	1⅜	77	7/16	16	¾
28	⅜	16	1½	78	7/16	16	⅞
29	⅜	16	1⅝	79	7/16	16	1
30	⅜	16	1¾	80	7/16	16	1⅛
31	⅜	18	⅜	81	7/16	16	1¼
32	⅜	18	½	82	7/16	16	1⅜
33	⅜	18	⅝	83	7/16	16	1½
34	⅜	18	¾	84	7/16	16	1⅝
35	⅜	18	⅞	85	7/16	16	1¾
36	⅜	18	1⅛	86	7/16	16	1⅞
37	⅜	18	1¼	87	7/16	16	2
38	⅜	18	1¼	88	7/16	16	2¼
39	⅜	18	1½	89	7/16	16	2½
40	⅜	18	1⅝	90	½	14	½
41	⅜	18	1¾	91	½	14	⅝
42	7/16	14	⅜	92	½	14	¾
43	7/16	14	½	93	½	14	⅞
44	7/16	14	⅝	94	½	14	1
45	7/16	14	¾	95	½	14	1⅛
46	7/16	14	⅞	96	½	14	1¼
47	7/16	14	1	97	½	14	1⅜
48	7/16	14	1⅛	98	½	14	1½
49	7/16	14	1¼	99	½	14	1⅝
50	7/16	14	1⅜	100	½	14	1¾
101	½	14	1⅞	151	¾	16	⅞

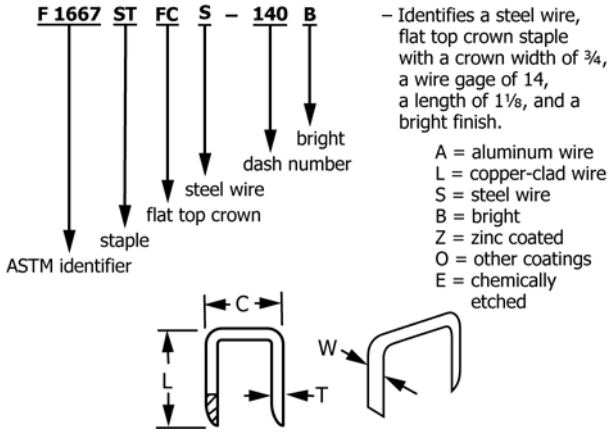
TABLE 56 *Continued*



F1667 STFC

Dash No.	C	G	L	Dash No.	C	G	L
102	½	14	2	152	¾	16	1
103	½	14	2¼	153	¾	16	1⅛
104	½	14	2½	154	¾	16	1¼
105	½	15	½	155	¾	16	1⅜
106	½	15	⅝	156	¾	16	1½
107	½	15	¾	157	¾	16	1⅝
108	½	15	⅞	158	¾	16	1¾
109	½	15	1	159	¾	16	1⅞
110	½	15	1⅛	160	¾	16	2
111	½	15	1¼	161	⅞	14	½
112	½	15	1⅜	162	⅞	14	⅝
113	½	15	1½	163	⅞	14	¾
114	½	15	1⅝	164	⅞	14	⅞
115	½	15	1¾	165	⅞	14	1
116	½	15	1⅞	166	⅞	14	1⅛
117	½	15	2	167	⅞	14	1¼
118	½	15	2¼	168	⅞	14	1⅜
119	½	15	2½	169	⅞	14	1½
120	½	16	½	170	⅞	14	1⅝
121	½	16	⅝	171	⅞	14	1¾
122	½	16	¾	172	⅞	14	1⅞
123	½	16	⅞	173	⅞	14	2
124	½	16	1	174	⅞	16	½
125	½	16	1⅛	175	⅞	16	⅝
126	½	16	1¼	176	⅞	16	¾
127	½	16	1⅜	177	⅞	16	⅞
128	½	16	1½	178	⅞	16	1
129	½	16	1⅝	179	⅞	16	1⅛
130	½	16	1¾	180	⅞	16	1¼
131	½	16	1⅞	181	⅞	16	1⅜
132	½	16	2	182	⅞	16	1½
133	½	16	2¼	183	⅞	16	1⅝
134	½	16	2½	184	⅞	16	1¾
135	¾	14	½	185	⅞	16	1⅞
136	¾	14	⅝	186	⅞	16	2
137	¾	14	¾	187	15⁄16	14	½
138	¾	14	⅞	188	15⁄16	14	⅝
139	¾	14	1	189	15⁄16	14	¾
140	¾	14	1⅛	190	15⁄16	14	⅞
141	¾	14	1¼	191	15⁄16	14	1
142	¾	14	1⅜	192	15⁄16	14	1⅛
143	¾	14	1½	193	15⁄16	14	1¼
144	¾	14	1⅝	194	15⁄16	14	1⅜
145	¾	14	1¾	195	15⁄16	14	1½
146	¾	14	1⅞	196	15⁄16	16	½
147	¾	14	2	197	15⁄16	16	⅝
148	¾	16	½	198	15⁄16	16	¾
149	¾	16	⅝	199	15⁄16	16	⅞
150	¾	16	¾	200	15⁄16	16	1
201	15⁄16	16	1⅛	218	1	16	1
202	15⁄16	16	1¼	219	1	16	1⅛
203	15⁄16	16	1⅜	220	1	16	1¼
204	15⁄16	16	1½	221	1	16	1⅜
205	1	14	½	222	1	16	1½

TABLE 56 *Continued*



F1667 STFC

Dash No.	C	G	L	Dash No.	C	G	L
206	1	14	5/8	223	1 3/8	12	3/4
207	1	14	3/4	224	1 17/32	12	3/4
208	1	14	7/8	225	2 1/8	10	1
209	1	14	1	226	1/4	18	3/8
210	1	14	1 1/8	227	1/4	18	1/2
211	1	14	1 1/4	228	1/4	18	5/8
212	1	14	1 3/8	229	1/4	18	3/4
213	1	14	1 1/2	230	1/4	18	7/8
214	1	16	1/2	231	1/4	18	1
215	1	16	5/8	232	1/4	18	1 1/8
216	1	16	3/4	233	1/4	18	1 1/4
217	1	16	7/8	234	1/4	18	1 1/2

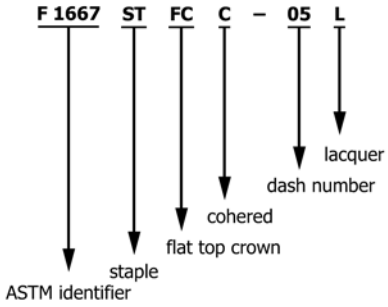
Dimensions and Tolerances for Gages of Flat Top Crown Staples

		10 Gage		12 Gage		14 Gage		15 Gage		16 Gage		18 Gage	
		T	W	T	W	T	W	T	W	T	W	T	W
Nominal		.1250	.1400	.0935	.1120	.0735	.0855	.0673	.073	.0563	.064	.038	.050
Maximum		.1290	.1440	.0975	.1160	.0775	.0895	.0731	.076	.0626	.068	.0415	.0532
Minimum		.1210	.1360	.0895	.1080	.0695	.0815	.0615	.070	.0500	.060	.0345	.0468
Tolerance	±	.0040	.0040	.0040	.0040	.0040	.0040	.0058	.003	.0063	.004	.0035	.0032

[A]All dimensions are given in inches.

TABLE 57 Type IV, Style 3—Flat Top Crown Staples[A]

NOTE 1—Steel wire, chisel point, tin plated, zinc coated or lacquer finish, as specified, cohered together in strips. (For use in staple tackers or machines.) The number per strip shall be as specified and shall be suitable for use in the make and model of tool specified.

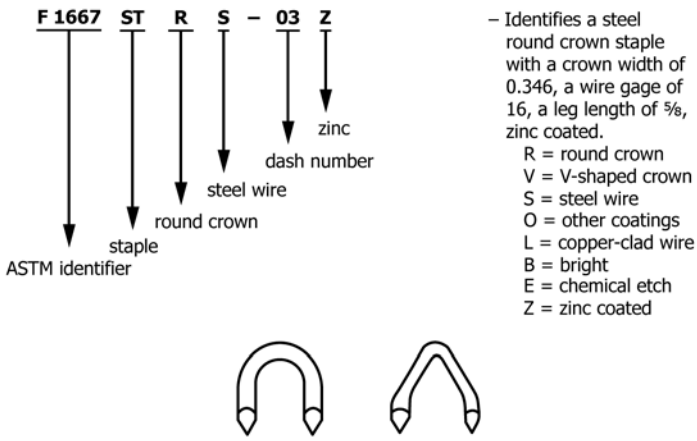


F 1667 STFCC							
Dash No.	*L*	*T* × *W*	*C*[B]	Dash No.	*L*	*T* × *W*	*C*[B]
01	3/16	0.020 × 0.030	0.500	10	9/16	0.020 × 0.050	0.437
02	1/4	0.020 × 0.030	0.500	11	3/8	0.030 × 0.050	0.164
03	5/16	0.020 × 0.030	0.500	12	1/2	0.030 × 0.050	0.164
04	1/4	0.020 × 0.050	0.500	13	5/8	0.030 × 0.050	0.164
05	5/16	0.020 × 0.050	0.500	14	3/4	0.030 × 0.050	0.164
06	3/8	0.020 × 0.050	0.500	15	7/8	0.030 × 0.050	0.164
07	1/2	0.020 × 0.050	0.500	16	1	0.030 × 0.050	0.164
08	3/8	0.020 × 0.050	0.437	17	1 1/8	0.030 × 0.050	0.164
09	1/2	0.020 × 0.050	0.437	18	1 1/4	0.030 × 0.050	0.164

[A]All dimensions are given in inches.
[B]Crown width, *C*, tolerances: 0.500 ± 0.015, 0.437 ± 0.010, and 0.164 ± 0.015.

TABLE 58 Type IV, Style 4—Round or "V" Crown Staple [A]

NOTE 1—Steel wire or copper-clad wire, bright finish, zinc coated, other coatings or chemically etched, as specified. (For use in power tools for fastening wood and other materials to wood.)

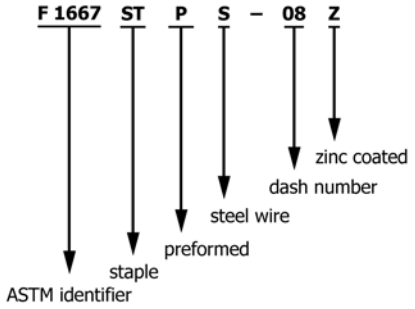


Dash No.	*C*[B]	*G*	*L*	Dash No.	*C*[B]	*G*	*L*
01	0.346	16	1/2	07	0.435	16	1/2
02	0.346	16	9/16	08	0.435	16	9/16
03	0.346	16	5/8	09	0.435	16	5/8
04	0.346	16	3/4	10	0.435	16	3/4
05	0.346	16	7/8	11	0.435	16	7/8
06	0.346	16	1	12	0.435	16	1

[A]All dimensions are given in inches.
[B]Crown width tolerances: +0.015 and –0.000.

TABLE 59 Type IV, Style 5—Preformed Staples[A]

NOTE 1—Steel wire, chisel point, zinc or other coatings, as specified. Copper-clad wire, chisel point, tinned or other plated finish, as specified. (Hand driven.)

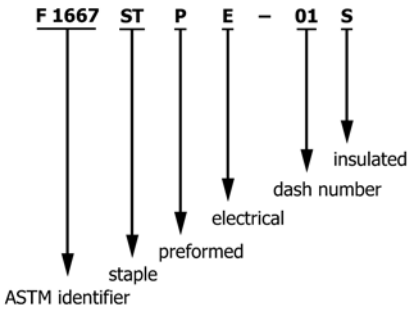


Dash No.	*L*	*C*	*D*	Flatten	Point Length	Point Angle, °	No./lb
01	3/8	7/32	0.054	0.040	3/16	13	1920
02	13/32	3/16	0.067	0.048	3/16	12	1380
03	7/16	7/32	0.067	0.048	1/4	12	1250
04	1/2	1/4	0.072	0.057	1/4	12	860
05	9/16	9/32	0.072	0.057	5/16	12	800
06	5/8	5/16	0.072	0.057	5/16	12	670
07	11/16	3/4	0.083	0.060	11/32	12	540
08	3/4	3/8	0.083	0.060	11/32	12	410

[A]All dimensions are given in inches.

TABLE 60 Type IV, Style 6—Electrical Staples[A]

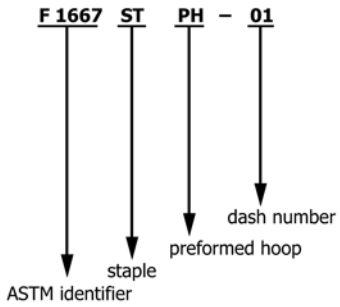
NOTE 1—Insulated or uninsulated, as specified.



Dash No.	*L*	*C*	*D*	Flatten	Point Length	Point Angle	No./lb
01	3/8	5/32	0.067	0.048	1/4	12	1440
02	1/2	3/16	0.072	0.057	1/4	12	990
03	5/8	1/4	0.072	0.057	5/16	12	740
04	3/4	3/16	0.083	0.060	11/32	12	480
05	3/4	1/4	0.083	0.060	11/32	12	450
06	7/8	1/4	0.083	0.060	11/32	12	400
07	7/8	7/16	0.083	0.060	11/32	12	370
08	1	1/2	0.120	0.050 × 0.215	3/8	18	. . .
09	1 1/4	5/8	0.120	0.050 × 0.215	3/8	18	. . .

[A]All dimensions are given in inches.

TABLE 61 Type IV, Style 7—Preformed Hoop Staple[A]

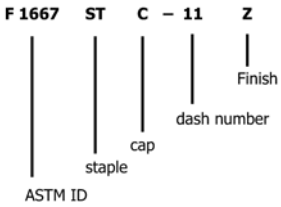


Dash No.	*L*	*C*	*D*	Flatten	No./lb
01	1/2	1/2	0.072	0.057	720
02	1/2	1/2	0.083	0.060	470
03	5/8	1/2	0.072	0.057	580
04	5/8	1/2	0.083	0.060	430
05	3/4	1/2	0.072	0.057	490
06	3/4	1/2	0.083	0.060	370
07	1/2	5/8	0.072	0.057	670
08	1/2	5/8	0.083	0.060	470
09	5/8	5/8	0.072	0.057	530
10	5/8	5/8	0.083	0.060	400
11	3/4	5/8	0.072	0.057	460
12	3/4	5/8	0.083	0.060	340
13	1/2	3/4	0.072	0.057	580
14	1/2	3/4	0.083	0.060	430
15	1/2	3/4	0.109	0.083	260
16	5/8	3/4	0.072	0.057	490
17	5/8	3/4	0.083	0.060	370
18	5/8	3/4	0.109	0.083	220
19	3/4	3/4	0.072	0.057	430
20	3/4	3/4	0.083	0.060	320
21	3/4	3/4	0.109	0.083	190
22	1	3/4	0.072	0.057	350
23	1	3/4	0.083	0.060	260
24	1	3/4	0.109	0.083	150
25	1/2	7/8	0.072	0.057	530
26	1/2	7/8	0.083	0.060	400
27	5/8	7/8	0.072	0.057	460
28	5/8	7/8	0.083	0.060	340
29	3/4	7/8	0.072	0.057	410
30	3/4	7/8	0.083	0.060	300
31	7/8	7/8	0.072	0.057	360
32	7/8	7/8	0.083	0.060	270
33	5/8	1	0.083	0.060	320
34	5/8	1	0.109	0.083	200
35	3/4	1	0.083	0.060	290
36	3/4	1	0.109	0.083	180
37	7/8	1	0.083	0.060	260
38	7/8	1	0.109	0.083	160
39	1	1	0.083	0.060	240
40	1	1	0.109	0.083	140
41	3/4	1 1/4	0.083	0.060	220
42	3/4	1 1/4	0.109	0.083	130
43	. . .	1 1/4	0.083	0.060	180
44	1	1 1/4	0.109	0.083	140

[A]All dimensions are given in inches.

TABLE 62 Type IV, Style 8-Cap Staples

NOTE 1—Cap staples are Type IV, Style 3, steel, flat top crown, with bright finish or zinc coated (as specified) staples, with a 1 in. diameter plastic cap having a cap diameter tolerance of ± 0.025 in. Minimum thickness of the outside edge of plastic caps is 0.035 in. Staples are driven with a hand (swung) or power tool with the staple being driven though the cap at point of application. Staples and caps may be packaged together or separately. Regardless of packaging, nails and caps are separately loaded into application tools with the staple being driven through the cap at point of application.



Identifies a 1" plastic cap with a steel wire, flat top crown staple with a crown width of 5/16", a wire gage of 18, a length of 1-3/16", and a galvanized finish.

B – Bright
Z – Zinc coated

STC —Staples-Cap Sets			
Dash No.	Ga.	C	L
1	18	3/16	3/4
2	18	3/16	7/8
3	18	3/16	1
4	18	3/16	1–1/8
5	18	3/16	1–3/16
6	18	3/16	1–1/2
7	18	5/16	3/4
8	18	5/16	7/8
9	18	5/16	1
10	18	5/16	1–1/8
11	18	5/16	1–3/16
12	18	5/16	1–1/2
13	18	3/8	5/8
14	18	3/8	3/4
15	18	3/8	7/8
16	18	3/8	1
17	18	3/8	1–1/8
18	18	3/8	1–1/4
19	18	3/8	1–3/8
20	18	3/8	1–1/2
21	18	7/16	5/8
22	18	7/16	3/4
23	18	7/16	7/8
24	18	7/16	1
25	18	7/16	1–1/8
26	18	7/16	1–1/4
27	18	7/16	1–3/8
28	18	7/16	1–1/2
29	20	3/8	5/8
30	21	1/2	5/8
31	24	3/8	3/8

SUPPLEMENTARY REQUIREMENTS

The following supplementary requirements shall apply when specified in the applicable table or when specified in the order or contract (5.1.7). Details of these supplementary requirements shall be agreed upon in writing between the manufacturer and the purchaser.

S1. Nail Bending Yield Strength

S1.1 When specified as a supplementary requirement for nails used for engineered construction, the average bending yield strengths of nails shall meet, as a minimum, the yield strengths provided in Table S1.1 and Table S1.2. The yield strengths are used in determining the lateral design loads tabulated in the AWC National Design Specification[5] for Wood Construction, NDS,[5] Chapter 12 Dowel-Type Fasteners.

[5] Available from American Wood Council (AWC), 222 Cotactin Circle, SE, Suite 201, Leesburg, VA 20175, National Design Specification® for Wood Construction (NDS®) www.awc.org

TABLE S1.1 Low to Medium Carbon Steel Nails and Spikes

Nominal Diameter, in.	Bending Yield, psi
0.099 ≤ 0.142	100 000
>0.142 ≤ 0.177	90 000
>0.177 ≤ 0.236	80 000
>0.236 ≤ 0.273	70 000
>0.273 ≤ 0.344	60 000
>0.344 ≤ 0.375	45 000

TABLE S1.2 Medium Carbon Steel Nails—Hardened

Nominal Diameter, in.	Bending Yield, psi
0.120 ≤ 0.142	130 000
>0.142 ≤ 0.192	115 000
>0.192 ≤ 0.207	100 000

S1.2 *Test Method for Yield Strength*—In order to conform with the supplementary requirements of S1, the procedure of Test Method F1575 shall be conducted on nail samples.

S1.3 At least five nails from each lot of 100 individual containers shall be examined and tested to determine conformance with this supplementary requirement.

S1.4 When labeled "Engineered Construction Nails, ASTM F1667," nails must meet all requirements of F1667 including Supplementary Requirements.

SUMMARY OF CHANGES

Committee F16 has identified the location of selected changes to this standard since the last issue F1667–15 that may impact the use of this standard. (Approved March 1, 2017.)

(1) Revised Table 1.
(2) Updates to referenced tables in section 4.2, 8.1, 8.3, 8.3.1, 8.4.3, 10.3, Note 2
Revision to sections:
(3) 2.1 Referenced Standards
(4) 8.2.1
(5) 8.2.3.1 – 8.2.3.2
(6) 8.4.3
(7) 9.1
(8) 10.1.1
(9) 10.2
(10) 10.3.2
(11) Note 4
(12) 12.2
Supplementary Requirements:
(13) Section S.1
(14) Table S1.1
Deletion of:
(15) Table 5 – Boat Nails
(16) Table 19 – Fine Nails
(17) Table 50 – Trunk Cut Nails
(18) Table 51 – Cobblers Cut Nails
(19) Table 52 – Extra-Iron Clinching Cut Nails
(20) Table 53 – Hob Cut Nails
(21) Table 57 – Barge and Boat Spikes
Renumber of all subsequent tables from Table 4 on After renumbering updates to the following
(22) Table 5 – Change to Note 1
(23) Table 6 – Change to Note 1
(24) Table 8 – Change to Note 1
(25) Table 9 – Change to Note 1
(26) Table 11– Change to Note 1
(27) Table 12 – Title change
(28) Table 13 – Title change
(29) Table 14 – Title change and Note 1
(30) Table 15 – Title change and Note 1
(31) Table 16 – Change to Note 1
(32) Table 17 – Title Change and Note 1
(33) Table 18 – Change to Note 1
(34) Table 19 – Change to Note 1
(35) Table 20 – Change to Note 1 and Table body
(36) Table 26 – Title Change, Note 1 and Table body
(37) Table 27 – Title Change, Note 1 and Table body
(38) Table 28 – Title change
(39) Table 29 – Title change and Note 1
(40) Table 30 – Title change and Note 1
(41) Table 31-Table 32 – Title changes, Note 1, separation into two distinct tables
(42) Table 33 – Title change
(43) Table 36 – Title change and Note 1
(44) Table 45 – Title change, Note 1 and Table body
(45) Table 46 – Change to Note 1
(46) Table 56 – Change to Note 1
(47) Table 58 – Change to Note 1
(48) Table 59 – Change to Note 1