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INTERNATIONAL

Designation: F1667-03 Designation: F 1667 - 05

# Standard Specification for Driven Fasteners: Nails, Spikes, and Staples<sup>1</sup>

This standard is issued under the fixed designation F 1667; 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 ( $\varepsilon$ ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the 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 3-63Tables 3-64.

1.2Fasteners <u>1.2</u> 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 the standard.

1.4 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.

#### 2. Referenced Documents

2.1 ASTM Standards:<sup>2</sup>

A 153/A 153M Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

A 510M Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel [Metric]

A 641/A 641M Specification for Zinc-Coated (Galvanized) Carbon Steel Wire

B 695 Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel

F 547 Terminology of Nails for Use with Wood and Wood-Base Materials

F 592 Terminology of Collated and Cohered Fasteners and Their Application Tools

F 680 Test Methods for Nails

F 1575 Test Method for Determining Bending Yield Moment of Nails

#### 3. Terminology

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3.1 *Definitions*—The definitions used in this specification are those of common commercial acceptance and usage and also appear in Terminologies F 547 and F 592.

#### 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 3-63Tables 3-64, identifies dimensions specifically and establishes a PIN (part identifying number) system when preceded by the F 1667 ASTM designator of this specification. For example:

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<sup>&</sup>lt;sup>1</sup> 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. Current edition approved May 10, 2003. Published June 2003. Originally approved in 1995. Last previous edition approved in 2002 as F1667–02a.

<sup>&</sup>lt;sup>2</sup> 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 , Vol 01.06.volume information, refer to the standard's Document Summary page on the ASTM website.

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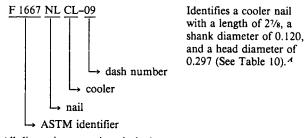
TABLE 1 Classification and Identification Index

		sincation and ide		
Туре		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 SK	10 11
	8. 9.	Sinker Corker	CK	12
	10.	Common	CMA	13
	10.	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
	17	Lath		23
	17. 18.	Masonry Pallet	MR/MRH PL	24 25
	18.	Gypsum wallboard	GWS	25 26
	19.	Gypsum wallboard	GWS GWM	26 27
	20.	Roofing	RFA	28
	20.	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. 24.	Slating	SLA/SLC/SLS	38
	24.	Rubber heel Underlayment	BHOULEVIEW	39 40
	25.	Square-barbed	SB	40 41
	20.	Masonry drive	MD	42
	28.	Escutcheon	ES	43
	29.	Glulam rivet 667	GR	44
	30.	Post frame	PF	45
II Cut nails (CN)	ds <del>/1.</del> 151	Common aaa-a	a <del>cM</del> 4e0c-bt5d-d	34502
II—Cut nails (CN)	_1.	Common	CM	46
	-2.	<del>Basket</del>	<del>BK</del>	<del>46</del>
		Basket	BK	47 47
	<del>3.</del>	Clout	GL	47
	3.	Clout		48
	- <del>4.</del> 4	<del>Trunk</del> Trunk		4 <del>8</del> 40
	<u>4.</u> -5.	<u>Trunk</u> <del>Cobblers</del>	TR <del>CB</del>	49 49
	5.	Cobblers	CB	<del>49</del> 50
	<u>5.</u> -6.	Extra-iron clinching		<u>50</u>
		Extra-iron clinching		51
	<u>6.</u> <del>7.</del>	Hob		51
	7.	Hob	HB	52
III—Spikes (SP)	<u>7.</u> <u>1.</u>	Common	<del>CM</del>	<del>52</del>
III—Spikes (SP)	1.	Common	CM	53
	<del>_2.</del>	Gutter	GRF/GRO	<del>53</del>
	_2.	Gutter	GRF/GRO	54
	<del>_3.</del>	Round	RDC/RDF	54
	3.	Round	RDC/RDF	55
	-4-	Barge and boat	BB	<del>55</del>
	<u>4.</u> - <u>1.</u>	Barge and boat	BB	56
IV-Staples (ST)		Fence	<del>FN</del>	<del>56</del>
IV—Staples (ST)	<u>1.</u> -2.	Fence Poultry netting	FN PN	<u>57</u> <del>57</del>
		Poultry netting	PN	<del>57</del> 58
	<u>2.</u> <u>3.</u>	Flat top crown	FR	<u>58</u>
	3.	Flat top crown	FC	59
		Flat top crown	FCC	59 59
		Flat top crown	FCC	60
	4	Round or V crown	RC	60
			RC	61
	- <del>4.</del> 4.	Round or V crown		
	4.	Round or V crown Preformed	PC	61
	<u>4.</u> -5.		PC	<del>61</del>
	4.	Preformed		
	4. -5. 5. -6.	Preformed Preformed Electrical Electrica2		61 62 62 63
	<u>4.</u> <del>5.</del>	Preformed Preformed Electrical	PC RE	<del>61</del> 62 <del>62</del>



#### TABLE 2 Bend Angles for Fasteners Using the Test Methods F 680 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



<sup>A</sup> All dimensions are given in inches.

4.2 The trade designation, *S*, pennyweight, used in commercial practice is referenced in Tables 3-63 Tables 3-64 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; 70736aaa-alad-4e0c-bbbd-d3cb26388865/astm-f1667-05

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 F 680. 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.

#### 8. Dimensions and Tolerances

8.1 Nominal dimensions of nails and spikes shall be as shown in Tables 3-55 Tables 3-56. 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

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 shall be measured before deformation, or, if specified, the thread crest diameter after deformation, or both. 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  $\pm \frac{1}{32}$  in. for lengths up to and including 1 in.;  $\pm \frac{1}{16}$  in. for lengths over 1 in., up to and including  $2\frac{1}{2}$  in.;  $\pm \frac{3}{32}$  for lengths over  $2\frac{1}{2}$  in., up to and including 7 in.; and  $\pm \frac{1}{8}$  in. for all lengths over 7 in.

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

8.2.3 Head Diameter Tolerances:

8.2.3.1 *Hand Driven*—Tolerances on head diameters of roofing nails shall be  $\pm 0$ , -10% of the nominal head diameter (the mean of two readings 90° apart). For other brads, nails, and spikes, the tolerance shall be  $\pm 10\%$  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 Driven*—Tolerances on head diameters of power-driven nails shall comply with the 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 56-63 Tables 57-64, and the following dimensional designations shall apply:

8.3.1 Hand Tool–Driven Nominal Dimensions:

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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 58 and 59 Tables 59 and 60),
- W = leg width, in. (see Tables 58 and 59 Tables 59 and 60),
- 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  $+\frac{1}{32}$ ,  $-\frac{1}{64}$  in. for both hand tool-driven and power tool-driven staples.

8.4.2 Diameter tolerances for hand tool-driven round staples shall be  $\pm 0.002$  in. for diameters smaller than 0.076 in. and  $\pm 0.004$  in. for diameters 0.076 in. and larger.

8.4.3 Thickness and width tolerances on power-driven staples shall comply with the manufacturer's specification and shall be suitable for use in the make and model tool specified (see Tables 58 and 59 Tables 59 and 60).

8.4.4 Crown width tolerances are  $\pm \frac{1}{32}$  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 45-50 Tables 46-51 refers to sheet thickness in finished product. Other designations shall be the same as those for nails in 8.1.

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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 A 510<u>M</u>, 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 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 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 A 641/A 641M, Supplementary Requirements, Class 1.

10.1.3 Hot-dip galvanized steel fasteners coated after forming shall have a coating weight in accordance with Specification A 153/A 153M, Class D, when a heavier coating for exterior use is specified. If not otherwise specified, the coating weight shall be in accordance with Specification A 641/A 641M, Supplementary Requirements, Class 1.

10.1.4 Mechanically deposited zinc coatings applied to fasteners after forming shall have a thickness in accordance with Specification B 695, Class 40, unless otherwise specified.

10.2 Other Coatings and Finishes (When Specified):

10.2.1Cement<u>10.2.1</u> 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.

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

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

10.2.4 Miscellaneous finishes, such as tin plating, liquor, brass plating, copper plating, phosphate coating, or oil coating shall be applied.

10.3 Altered Shapes and Deformations :

10.3.1Mechanically 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.

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.

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 58 or Table 59 or Table 60).

#### 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.

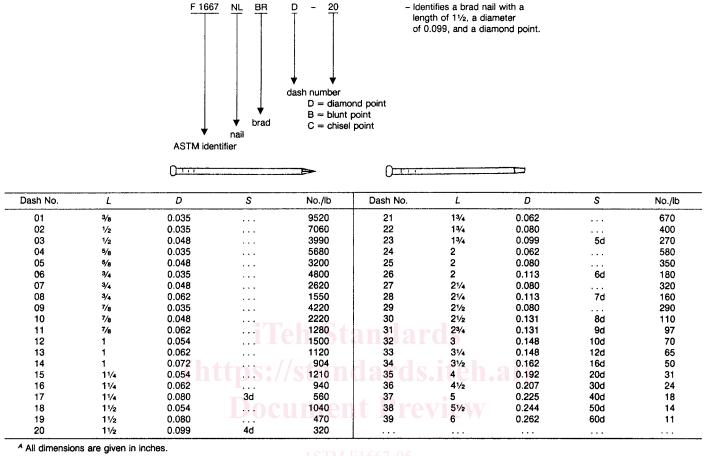
12.2 When specified, individual packages and shipping containers shall be marked with the part-identifying number and type, length, diameter (or gage, as applicable) of the fastener, the name of the manufacturer or distributor, and the quantity or net weight.

#### 13. Keywords

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

TABLE 3 Type I, Style 1-Brads<sup>A</sup>

NOTE—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.

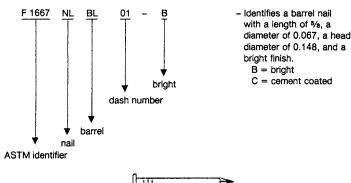


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 TABLE 4
 Type I, Style 2—Barrel Nails<sup>A</sup>

Note-Steel wire, flat head, diamond point, round smooth shank, bright, zinc or cement coated as specified.

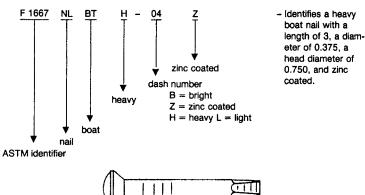


Dash No.	L	D	н	No./lb	Dash No.	L	D	н	No./lb
01	5/8	0.067	0.148	1.550	05	11/8	0.076	0.177	670
02	3/4	0.067	0.148	1.300	06	11/4	0.080	0.188	540
03	7/8	0.076	0.177	850	07	13⁄8	0.092	0.219	380
04	1	0.076	0.177	750	08	11/2	0.092	0.219	350

All dimensions are given in inches.

#### TABLE 5 Type I, Style 3—Boat nails<sup>A</sup>

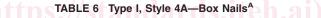
Note-Steel wire, oval countersunk head, chisel point, round smooth shank, bright or zinc coated as specified.



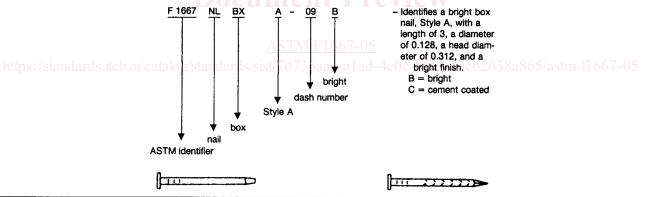
		F 1667	NLBTL					F 1667 NLBTH			
Dash No.	S	L	D	н	No./Ib	Dash No.	S	L	D	н	No./Ib
01	4d	11/2	0.188	0.406	82	01	4d	11/2	0.250	0.500	47
02	6d	2	0.188	0.406	62	02	6d	2	0.250	0.500	36
03	8d	21/2	0.188	0.406	50	03	8d	21/2	0.250	0.500	29
04	10d	3	0.250	0.500	24	04	10d	3	0.375	0.750	11
05	12d	31/4	0.250	0.500	22	05	12d	31/4	0.375	0.750	10
06	16d	31/2	0.250	0.500	20	06	16d	31/2	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.

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NOTE—Steel wire, flat head, diamond point, round, barbed or smooth shank, bright or cement coated 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.



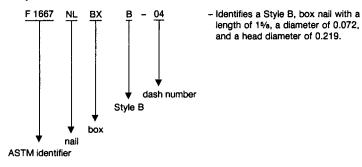
					F 1667 NLBXA											
Dash No.	S	L	D	н	No./lb	Dash No.	S	L	D	н	No./lb					
01	2d	1	0.067	0.188	940	08	9d	23/4	0.113	0.297	120					
02	3d	11/4	0.076	0.219	590	09	10d	3	0.128	0.312	90					
03	4d	11/2	0.080	0.219	450	10	12d	31/4	0.128	0.312	83					
04	5d	13⁄4	0.080	0.219	390	11	16d	31/2	0.135	0.344	69					
05	6d	2	0.099	0.266	220	12	20d	4	0.148	0.375	50					
06	7d	21/4	0.099	0.266	200	13	30d	41/2	0.148	0.375	45					
07	8d	21/2	0.113	0.297	140	14	40d	5	0.162	0.406	34					

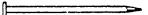
A All dimensions are given in inches.

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TABLE 7 Type I, Style 4B-Box Nails<sup>A</sup>

Note-Steel wire, flat head, diamond point, round smooth shank, cement coated.



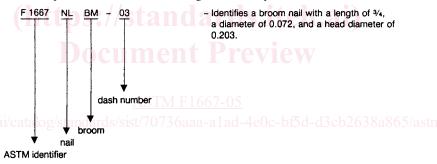


					F 1667	NLBXB					
Dash No.	S	L	D	Н	No./Ib	Dash No.	S	L	D	Н	No./Ib
01	2d	1	0.058	0.172	1250	06	7d	21/8	0.086	0.250	280
02	3d	11/8	0.062	0.188	980	07	8d	2 <sup>3</sup> /8	0.099	0.266	190
03	4d	13⁄8	0.067	0.203	680	08	9d	25/8	0.099	0.266	170
04	5d	15/8	0.072	0.219	510	09	10d	27/8	0.113	0.297	120
05	6d	17/8	0.086	0.250	315						

All dimensions are given in inches.



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



Dash No.	L	D	н	No./Ib
01	5/8	0.072	0.203	1480
02	5/8	0.080	0.219	990
03	3/4	0.072	0.203	1170
04	3/4	0.080	0.219	840

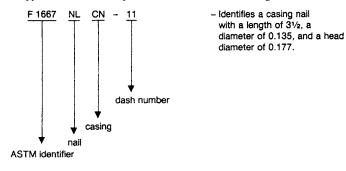
n

All dimensions are given in inches.

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#### TABLE 9 Type I, Style 6—Casing Nails<sup>A</sup>

Note-Steel wire, flat countersunk cupped head, diamond point, round smooth shank, bright finish.

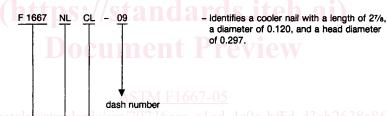


Dash No.	S	L	D	Н	No./lb	Dash No.	S	L	D	Н	No./lb		
01	2d	1	0.067	0.099	1090	07	8d	21/2	0.113	0.155	150		
02	3d	11/4	0.076	0.113	650	08	9d	23/4	0.113	0.155	135		
03	4d	11/2	0.080	0.120	490	09	10d	3	0.128	0.170	95		
04	5d	13/4	0.080	0.120	415	10	12d	31/4	0.128	0.170	90		
05	6d	2	0.099	0.142	245	11	16d	31/2	0.135	0.177	75		
06	7d	21/4	0.099	0.142	215								

All dimensions are given in inches.

#### TABLE 10 Type I, Style 7-Cooler Nails<sup>A</sup>

NOTE—Steel wire, flat head, diamond point, round smooth shank, cement coated. When specified, coolers shall have an altered or T-head for use with mechanical drivers.



https://standards.iteh.ai/catalog/standar.ls/sist/70736aaa-a1ad-4e0c-bf5d-d3cb2638a865/astm-f1667-05

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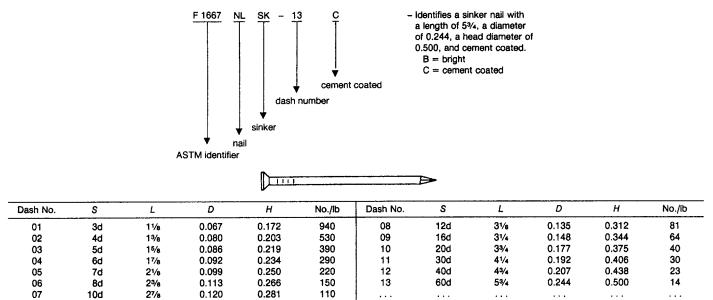
				l-	<u>, 111</u>						
Dash No.	S	L	D	Н	No./Ib	Dash No.	S	L	D	н	No./lb
01	2d	1	0.062	0.172	1110	06	7d	21/8	0.099	0.266	210
02	3d	11/8	0.067	0.188	840	07	8d	23/8	0.113	0.281	140
03	4d	13⁄a	0.080	0.219	490	08	9d	25/a	0.113	0.281	130
04	5d	15⁄a	0.086	0.234	370	09	10d	27/8	0.120	0.297	100
05	6d	17⁄a	0.092	0.250	280					• • •	

All dimensions are given in inches.

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TABLE 11 Type I, Style 8—Sinker Nails<sup>A</sup>

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



All dimensions are given in inches.

# TABLE 12 Type I, Style 9—Corker Nails<sup>A</sup>

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

F 1667 NL CK CUT Ment - Identifies a corker nail with a length of 1, a diameter of 0.062, and a head diameter of 0.156.

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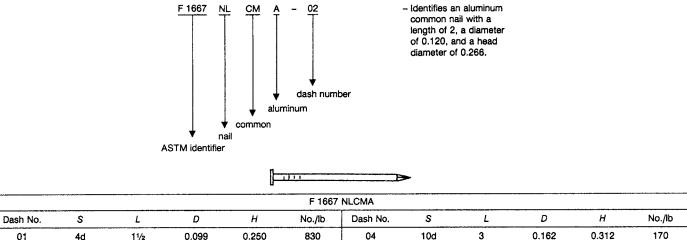


Dash No.	S	L	D	н	No./lb	Dash No.	S	L	D	н	No./Ib
01	2d	1	0.062	0.156	1220	09	10d	27/8	0.135	0.312	89
02	3d	11/4	0.072	0.188	720	10	12d	31/8	0.135	0.312	81
03	4d	11/2	0.086	0.219	420	11	16d	33/8	0.148	0.344	62
04	5d	15/8	0.086	0.219	320	12	20d	37/8	0.177	0.375	38
05	6d	17/8	0.099	0.250	250	13	30d	43/8	0.192	0.406	29
06	7d	21/8	0.099	0.250	220	14	40d	47/8	0.207	0.438	22
07	8d	23/8	0.120	0.281	130	15	50d	5³/s	0.226	0.469	17
08	9d	25/8	0.120	0.281	120	16	60d	57/s	0.244	0.500	13

<sup>A</sup> All dimensions are given in inches.

#### TABLE 13 Type I, Style 10-Common Nails<sup>A</sup>

Note-Aluminum alloy wire, flat head, diamond point, round smooth shank, or, when specified, square barbed shank.



01 4d 11/2 0.099 0.250 830 04 10d 3 0.162 0.312 0.177 05 0.344 02 6d 0.120 0.266 430 16d 31/2 2 0.406 0.148 0.281 220 06 20d 0.199 03 8d 21/2 4

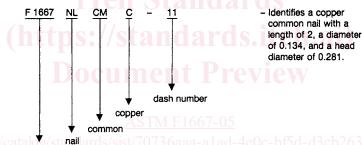
<sup>A</sup> All dimensions are given in inches.



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Note-Copper wire, flat head, diamond point, round smooth shank.



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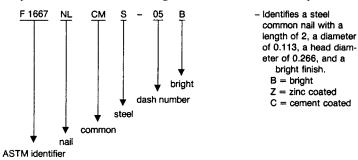
	F 1667 NLCMC												
Dash No.	L	D	Н	No./Ib	Dash No.	L	D	Н	No./Ib				
01	5/8	0.065	0.156	1380	10	2	0.120	0.266	130				
02	3/4	0.065	0.156	1160	11	2	0.134	0.281					
03	3/4	0.072	0.172	960	12	21/2	0.134	0.281	86				
04	7/8	0.072	0.172	810	13	3	0.148	0.312	56				
05	1	0.072	0.172	700	14	31/2	0.165	0.344	40				
06	11/4	0.083	0.203	420	15	4	0.203	0.406	23				
07	11/2	0.109	0.250	210	16	41/2	0.220	0.438	18				
08	13/4	0.109	0.250	180	17	5	0.238	0.469	14				
09	13/4	0.120	0.266	140	18	6	0.284	0.531	8				

A All dimensions are given in inches.

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TABLE 15 Type I, Style 10-Common Nails<sup>A</sup>

Note-Steel wire, flat head, diamond point, round smooth shank, bright, zinc or cement coated as specified.

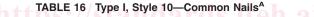




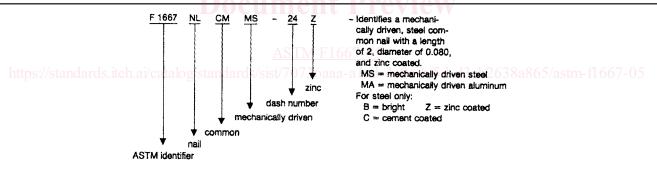
F 1667 NLCMS													
Dash No.	S	L	D	н	No./Ib	Dash No.	S	L	D	н	No./ib		
01	2d	1	0.072	0.172	850	09	10d	3	0.148	0.312	66		
02	3d	11/4	0.080	0.203	540	10	12d	31/4	0.148	0.312	61		
03	4d	11/2	0.099	0.250	290	11	16d	31/2	0.162	0.344	47		
04	5d	13/4	0.099	0.250	250	12	20d	4	0.192	0.406	30		
05	6d	2	0.113	0.266	170	13	30d	41/2	0.207	0.438	23		
06	7d	21/4	0.113	0.266	150	14	40d	5	0.226	0.469	17		
07	8d	21/2	0.131	0.281	100	15	50d	51/2	0.244	0.500	14		
08	9d	23/4	0.131	0.281	92	16	60d	6	0.262	0.531	11		

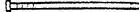
All dimensions are given in inches.

# Teh Standards



NOTE—Aluminum alloy wire, or steel wire, (bright, zinc coated or cement coated), altered or T-head, diamond or chisel point, round smooth shank, as specified. For use with mechanical drivers.





F 1667 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	<b>1</b> 1⁄4	0.080	15	13⁄4	0.086	29	2	0.148	43	13⁄4	0.120	57	23/8	0.113	71	3	0.131
02	<b>1</b> 1⁄4	0.086	16	<b>1</b> 3⁄4	0.092	30	21/4	0.092	44	11/8	0.120	58	23⁄8	0.120	72	3	0.148
03	<b>1</b> 1⁄4	0.092	17	<b>1</b> 3⁄4	0.099	31	21/4	0.099	45	11/8	0.131	59	23⁄8	0.131	73	31⁄4	0.120
04	<b>1</b> 1⁄4	0.099	18	<b>1</b> 3⁄4	0.113	32	21/4	0.113	46	11/8	0.148	60	23/8	0.148	74	31⁄4	0.131
05	<b>1</b> ½	0.080	19	11/8	0.080	33	21/2	0.092	47	2	0.120	61	21/2	0.120	75	31⁄4	0.148
06	<b>1</b> ½	0.086	20	17⁄8	0.086	34	21/2	0.099	48	2	0.131	62	21/2	0.148	76	31/2	0.135
07	<b>1</b> ½	0.092	21	11/8	0.092	35	<b>2</b> ½	0.113	49	21/8	0.099	63	<b>2</b> ½	0.162	77	31/2	0.148
08	<b>1</b> ½	0.099	22	11/8	0.099	36	<b>2</b> ½	0.131	50	21/8	0.113	64	25/8	0.148	78	31/2	0.162
09	<b>1</b> ½	0.113	23	11/8	0.113	37	31/2	0.131	51	21/8	0.120	65	23⁄4	0.120	79	4	0.148
10	15⁄8	0.080	24	2	0.080	38	11/2	0.120	52	21/8	0.131	66	23⁄4	0.131	80	4	0.162
11	15⁄8	0.086	25	2	0.086	39	11/2	0.131	53	21/8	0.148	67	23⁄4	0.148	81	41/2	0.148
12	15⁄8	0.092	26	2	0.092	40	11/2	0.148	54	21/4	0.120	68	27/8	0.120	82	41/2	0.162
13	15⁄8	0.099	27	2	0.099	41	11/2	0.162	55	21/4	0.131	69	3	0.120			
14	<b>1</b> 3⁄4	0.080	28	2	0.113	42	15⁄8	0.113	56	21/4	0.148	70	3	0.128			